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GenCore version 5.1.3
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OM nucleic - protein search, using frame_plus_n2p model

(without alignments) 2768.174 Million cell updates/sec January 6, 2003, 01-16-09; Search time 46 5 Seconds Run on:

US-09-882-735-1

gritaicicagattgagaat 483 Perfect score:

1 qatagtgtgtgtccccaaqg Sequence:

BLOSTM62 Xgapop 10.0 , Xgapext C Ygapop 10.0 , Ygapext Foanop 6 0 , Fgapext Scoring table:

908470 seqs, 133250620 residues Searched:

6.0 , Poloxt

Total number of hits satisfying chosen parameters:

Minimum DR seq length: 0 Maximum DR 404 length: 200000000

Maximum Match 100% Listing first 45 summaries Post processing: Minimum Match 08

Database :

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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2	4	00.	161	19	AAW59664	soluble
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17	4	00.	S	12	AAR10986	10kD TNF inhibitor
18	4	00.	S	12	AAR11082	Human 55kD TNF bin
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43	932			14	AAR51034	t pess tumenu
	G)			C	AAP12550	
			0	19	AAW64485	Human Fas protein,

ALIGNMENTS

AAR27496 standard; protein; 161 AA. Native 30 kD TNF inhibitor. 09-MAR-1993 (first entry) AAP27496; RESULT 1 AAR27496

Tumour necrosis factor, ethylene glycol, pharmokinetic, adult respiratory distress syndrome; rheumatoid arthritis; septic shock; pulmonary fibrosis; spacer.

Homo sapiens

W09216221-A.

01-OCT-1992.

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No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  this non-peptidic spacer. The modified polypeptides show improved pharmokinetic properties, i.e. increased mol. wt. hence reduced clearance rate following s.c. or systemic administration, increased sol. of native TNF inhibitors, and reduced antigenicity. The polypeptides may be used for treatment of TNF mediated diseases such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The sequence shows a native 30 kD TNF inhibitor which may be modified to contain at least one non-native cysteine residue, pref at positions 1, 14, 105, 111 and/or 165. The non-native cysteine i joined to a non-peptidic polymer, pref. monomethoxy PEG via thio-ether bonds. Two such TNF inhibitor mols, may be linked via
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              as adult respiratory distress syndrome, pulmonary fibrosis, rheumatoid arthritis, inflammatory bowel disease and septic shock. The same method may be applied to the interleukin-1 receptor antagonist
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New othylene glycolated polypeptide(s) with improved pharmacokineric properties - for treating e g TNF and IL-1 mediated diseases, e.g. adult respiratory distress syndrome, rheumatoid arthritis, septic shock etc.
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17-JAN-1992;
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LysGlmAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysVal
                                  AAASASAASASSTETISSASSTETISSATESAGGTTTSTTTCTAAGAGAAAACGAGTGTGTC
                                                                                                                                               ArgAspThrValCysGlyCysArgLysAsnGlnTyrArgHisTyrTrpSerGluAsnLeu
                                                                                                                                                                                                                                                                                                                                                                                            AAGTGCCAGAGACAAAAGTTTUTACAATQACTGTCCAGGCCGGGGCAGGATACGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                               AspCerValCysFroGlnGlyLysTyrTleHisFroGlnAsnAsnSerTleCysCysThr
                                                                         PheGlnCysPheAsnCysSerLeuCysLeuAsnGlyThrValHisLeuSerCysGlnGlu
                                                                                                            TICCAGIGOTTCAATIGCAGCCTCIGCCTCAATGGGACCGTGCACCTCTCCTGCCAGGAG
                                                                                                                                                                                                                       SerCysSerLysCysArgLysGluMetGlyGlnValGluIleSerSerCysThrValAsp
                                                                                                                                                                                                                                                                                                                                      TOCAGOGAGTSTSAGASCOGCTCCTTCACCGCTTCAGAAAACCACCTCAGACACTGCCTC
                                                                                                                                                                                                                                                          AGCTGCTCCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATCTCTTCTTGCACAGTGGAC
                                                                                                                                                                                                                                                                                               CysArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLeu
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92US-0822296.
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                                                                                                                                 Percent Similarity:
                                                                                                                                                                                                               receptor type I, used in the method of the invention involving the treatment of acute or chronic inflammatory disease such as leukaemia by administering tumour necrosis factor binding protein and at least one additional anti-inflammatory drug, e.g. methotrexate.
                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                          Treatment of acute or chronic inflammatory disease, e.g. leukae by administering tumour necrosis factor binding protein and at
                                                                                                                                                         No.:
                                                                                                                                                                                                                                                    This is the amino acid sequence of the human tumour necrosis factor receptor type I, used in the method of the invention involving the
                                                                                                                                                                                                                                                                                          Disclosure; Fig 1; 104pp; English.
                                                                                                                                                                                                                                                                                                                 one additional anti-inflammatory drug, e.g. methotrexate
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23-JAN-1997;
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61 AAGTGCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGGCAGGATACGGAC
                    161
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Soluble tumour necrosis factor receptor; STNFR; TNF-mediated disease; tumour necrosis factor binding protein; autoimmune disease; arthritis; adult respiratory distress syndrome; cachexia/anorexia; cancer; therapy; chronic fatigue syndrome; graft rejection; Alzheimer's disease; TNBP.
                        81 ArgAspThrValCysGlyCysArgLysAsnGlnTyrArgHisTyrTrpSerGluAsnLeu 100
                                                                                                                                                                                   AAACAGAACACGTGTGCACCTGCCATGCAGGTTTCTTTTTTTAAGAGAAAACGAGTGTGTC 420
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21 tysfysHisLysGlyThrTyrLeuTyrAsnAspCysProGlyProGlyGlnAspThrAsp 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This sequence is the human soluble tumour necrosis factor receptor
                                                                                        61 SerCysSerLysCysArgLysGluMetGlyGlnValGluIleSerSerCysThrValAsp
                                                                             AGCTGCTCCAAATGCCAAAGGGAAATGGGTCAGGTGGAGATCTCTTGCACAGTGGAC
                                                                                                                                                                                                                                                 Truncated and soluble forms of tumour necrosis factor receptor - useful for treating diseases involving factor, e.g. arthritis and adult respiratory distress syndrome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Soluble tumour necrosis factor receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                        AAW52267 standard; Protein; 161 AA
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06 - DEC-1996;
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invention. The protein was used to make the truncated STNFR proteins of the invention. The truncated STNFR proteins and tumour necrosis factor binding proteins (TNBP) are used to treat any TNF-mediated discouse.

e.g. arthritis, adult respiratory distress syndrome, graphysid, increasing cancer, chronic fatigue syndrome, graft rejection, Alzheimer's discouse and other autoimmune diseases. Cells transformed with a vector containing DNA encoding the protein may be used for production of recomminant sinkley, which may also be used for measuring the amount of STNFR in sumples and to raise antibodies against STNFR. TNBP may also be used in preparation of therapeutic compositions for treating the above discarses. The sTNIP proteins are well suited to large scale production (since they lack the deamidation site in region 111-126, so are more stable in vivo); contain the ever disulphide bonds and fewer epitopes, making them less antiquant
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-882-735-1 (1.483) x AAW52267 (1-161)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW89233 standard; Protein; 161 AA.
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100.00%
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                                                                                                                                                                                                                                          than full-length proteins.
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                                                                                                                                                                                                                                                                                  161 AA;
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Query Match:
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                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           acid encoding A1; (3) an expression vector comprising the nucleic acid sequence; and (4) a host cell transformed or transfected with the expression vector so that the nucleic acid is expressible. The products from the present invention are useful to treat a variety of disorders including those related to receptor binding. Compositions comprising tumour necrosis factor (TNF)/OFG and TNF receptor (TNFR)/OFG Chimeras
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     chimeras are also useful for detecting molecules which interact with fused heterologous sequences to identify potential new receptors and ligands. The present sequence represents the TNF inhibitor 30 kDa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         autoimmune diseases and disorders related to excessive apoptosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    are used to treat TNF and TNFR-mediated disorders such as inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     amino acid sequence. Also described are: (1) a multimer polypeptide comprising covalently associated Al monomers; (2) an isolated nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention describes a chimeric polypeptide (A1), comprising an obteopyotegerin (OPG) dimerisation domain fused to a heterologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure, Fig 2, 92pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New chimeric osteoprotegerin polypeptides - contain the osteoprotegerin dimerisation domain and a heterologous sequence, useful to treat TNF and TNFR-mediated disorders
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (AMGE-) AMGEN INC
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CBBBACACCGTGTBTBBCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT
                                  SerCysSerLysCysArgLysGluMetGlyGlnValGluIleSerSerCysThrValAsp
                                                                                                                              ISCASSGASTSTSAGAGCGGCTCCTTCACCGCTTCAGAAAACCCACCTCAGACACTGCCTC
                                                                                                                                                                                                                                                                                 GATAGTGTGTGTGTCCCCAAGGAAAAATATCCACCCTCAAAATAATTCGATTTGCTGTACC
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                                                                      AGETTS:TTSCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATCTCTTCTTGCACAGTGGAC 240
                                                                                                           CysArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLeu
                                                                                                                                                                                  LysCysHisLysGlyThrTyrLeuTyrAsnAspCysProGlyProGlyGlnAspThrAsp
                                                                                                                                                                                                                        AAGTGCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCAGGATACGGAC 120
                                                                                                                                                                                                                                                         {\tt AspSerValCysProGlnGlyLysTyrIleHisProGlnAsnAsnSerIleCysCysThr}
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                      The present invention relates to Tumour Necrosis Factor (TNF) inhibitors (see AAB37676 and AAB37685), which have TNF inhibitory activity. The novel TNF inhibitors of the present invention are useful as therapeutic agents for inhibiting the activity of TNF and interleukin (LL-1), and for treating inflammatory and degenerative diseases mediated by TNF. The 30 kDa TNF inhibitor can inhibit TNF alpha.
Sequence
                                                                                                                      Claim 1; Fig 19; 82pp; English.
                                                                                                                                                             Novel 30 kDa tumor necrosis factor inhibitor analog comprising a non-native cysteine residue cross-linked with polyethylene glycol, useful for treating inflammatory and degenerative diseases mediated by
                                                                                                                                                                                                                                                                                                                             07-FEB-1990;
                                                                                                                                                                                                                                                                                                                                            18-JUL-1989;
11-DEC-1989;
                                                                                                                                                                                                                                                                                                                                                                    19-JUL-1990;
09-JUL-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TNF inhibitor; antiinflammatory; Tumour Necrosis Factor; interleukin; IL-1; inflammatory disease; degenerative disease; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAB37676 standard; protein; 161 AA.
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                                                                                                                                                                                                                                                                                                   (AMGE-) AMGEN INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human 30 kDa TNF inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-MAR 2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LysGlnAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysVal
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161 AA;
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                                                                                                                                                                                                                                                                       King MW,
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93US-0090366.
89US-0381080.
89US-0450329.
90US-0479661.
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nice J, K
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Alignment Scores: Pred. No.:

3.89e-86 941.00

Matches:

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Tumour necrosis factor receptor 1; TNFR-1; inhibitor; osteoprotegerin; CPG; chimeric; fusion; dimerisation domain; autoimmune disease;
                                                                                                                                                                                                    121 TGCAGGGARGTGTGAGAGAGGGCTTCAGAAAAAGGACCTCAGAAAACGACCTCAGACACTCCTC 180
                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                  81 ArqAspThrValCysGlyCysArgLysAsnGlnTyrArgHisTyrTrpSerGluAsnLeu 100
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                                                                                            1 GATAGTGTGTGTGCCCCAAGGAAATATATCCACCCTCAAAATAATTCGATTTGCTGTACC 60
                                                                                                                                                                         21 LysCysHisLysGlyThrTyrLeuTyrAsnAspCysProGlyProGlyGlnAspThrAsp 40
                                                                                                                                                                                                                   41 CyrArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLeu 60
                                                                                                                                                                                                                                                                                       80
                                                                                                         181 AGCTGCTCCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATCTCTTGCACACAGTGGAC
                                                                                                                                                                                                                                                                          61 SerCysSerLysCysArgLysGluMetGlyGlnValGluIleSerSerCysThrValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                         Tumour necrosis factor bp/osteoprotegerin construct TNFbp 4.0.
    Conservative:
              Mismatches:
Indels:
                                                                US 09 882-735-1 (1-483) x AAB37676 (1-161)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Boyle WJ, Wooden S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1999-034661/03
Percent Similarity:
Best Local Similarity:
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New chimeric osteoprotegerin polypeptides - contain the osteoprotegerin dimerisation domain and a heterologous sequence, osteoprotegerin dimerisation domain and a heterouseful to treat TNF and TNFR-mediated disorders

Example 1; Fig 4; 92pp; English.

The present invention describes a chimeric polypeptide (A1), comprising an osteoprotegerin (OPG) dimerisation domain fused to a herroloopous amino acid sequence. Also described are: (1) a multimer polypeptide comprising covalently associated A1 monomers; (2) an isolared minchor acid encoding A1; (3) an expression vector comprising the run her expression vector so that the nucleic acid is expressible. The product from the present invention are useful to treat a variety of disorders from the present invention are useful to treat a variety of disorders including those related to receptor binding. Compositions computations tumour necrosis factor (TNP)/OPG and TNP receptor (TNPP)/OPG shimmon are used to treat a variety of disorders are used to treat and TNPR-mediated disorders such as inflammation, autoimmune diseases and disorders related to excessive apoptosis. The chimeras are also useful for detecting molecules which interact with fused heterologous sequences to identify potential mew receptors and ligands. The present sequence represents a TNFbp/OPC construct tom the example of the present invention for creating TNFbp/OPK fusion

211 AA; Sequence

Alignment Scores:			
Pred No :	4 20-AK	Longth.	211
Score.	941.00	Matches:	161
Percent Similarity:	100.00%	Conservative:	C
Rest Local Similarity.	100.00%	Mismatches:	c
Query Match:	100.00%	Indels:	0
DB:	2.0	Gaps:	0

US-09 882 735-1 (1-483) x AAW89225 (1 211)

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Best Local Similarity:
                                                                                                                                     Alignment Scores:
                                                                                                                                                                               The present invention relates to a method for treating conditions leading to bone loss. The method comprises administering a purified and isolated OC osteopynote-gerin (OFA) protein (AAF57836-AAF57838 and AAF66976) OC in ochlistic with other sitstances such as tumout necrosis factor-alpha (TWF-alpha) inhibitors, interleukin (TL)-(. 8 and 18 inhibitors, ICE OC conditions factor (PAF) antagonists. The method is useful for treating oc conditions leading to bone loss such as rheumatoid architis, multiple oc sclerosis, osteopynists, osteopynists and asthma. The method is also oc sclerosis, osteopynists, osteopynists and asthma. The method is also oc useful for treating inflammation, systemic lupus erythematosus (SLE) and orati-versus.host disease (GVED). Other diseases that can be treated oc include acute pancreatitis, Alzheimer's disease, anorexia, originally conditions (= 2 myroardia; inflammatory bowel disease, ischaemia, pain, Parkinson's disease, occasion, and septence was used in a sequence of booklass and septence shock. The present sequence was used in a sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                multiple scherosis; osteoporosis; osteomyelitis; asthma; inflammation; osteomolitus erythematosus, graft versus host disease, septic shock, soute panotestitis; highermer's disease; anotexia; atherosis; pain; occurring condition, mycoardial infarction, cancer, diabetes; psoriasis, endometriosis, fever, giometrionsphritis, inflammatory bowel disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Fig 2; 316pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Treating conditions leading to bone loss such as rheumatoid arthritis, multiple sclerosis and asthma, comprises administering an osterprotegating protein in only decline with e.g. inhibitors of interleukin and tumor necrosis factor alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Boyle WJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           00-751-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB66979 standard; Protein; 280 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-JAN-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ischaemia, Parkinson's disease.
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                                                                                                                                                                    Timparison
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lacey DL,
                                                                                                                                     280 AA;
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9918-0457647
100.00%
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941.00
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            Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
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882-735-1 (1-483) x AAB66979

(1-280)

GATAGIGIGIGICCCCAAGGAAAATATATCCACCCTCAAAATAATTCGATTTGCTGTACC 60

WPI; 1995-115452/15

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RESULT 8
AAR70108
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                                                                                                                                                                                                                                                                                                                                        Hybrid peptide; malaria parasité; Plasmodium falciparum; fusion protein; red blood cell; cytokine receptor, glycophorin binding peptide 130; GBP 130; GBFH; glycophorin binding peptide homologue; glycophorin binding peptide homologue; glycophorin h; tumour necrosis factor receptor; TNF-R.
                         Prendergast KF
                                                                                    03-SEP-1993;
23-AUG-1994;
                                                                                                                            01-SEP-1994;
                                                                                                                                                                                                                                                                                                Chimeric Homo sapiens.
Chimeric Plasmodium falciparum
                                                                                                                                                                                                                                                                                                                                                                                                                TNF-R-GBPH fusion protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                             10-NOV-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAR70108 standard; Protein; 309 AA.
                                                       (PREN/) PRENDERGAST K F.
                                                                                                                                                                                                                                                          Misc-difference
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LysGlrAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PheGlnCysPheAsnCysSerLeuCysLeuAsnGlyThrValHisLeuSerCysGinGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TICCAGIGCIICAAIIGGAGCICIGCCICAAGGGACCGIGGACCCICICCCGCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ArgAspThrValCysGlyCysArgLysAsnGlnTyrArgHisTyrTrpSerGluAsnLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGGGACACCGTGTGTGGCTGCAGGAAGAAUCAGTACUGGCATTATTGGAGTGAAAAAUCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCTGCTCCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATCTCTTCTTGCACAGTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LysCysHisLysGlyThrTyrLeuTyrAsnAspCysProGlyProGlyGlnAspThrAsp 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AspSerValCysProGlnGlyLysTyrIleHisProGlnAsnAsnSerIleCysCysThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SerCysSerAsnCysLysLysSerLeuGluCysThrLysLeuCysLeuFroGlnTleGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SerCysSerLysCysArgLysGluMetGlyGlnValGluTleSerSerCysThrValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CysArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLeu 100
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                                                                                  93GB-0018350.
94GB-0017021.
                                                                                                                            94WO-GB01900
                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                /note= "can be repeated n times, where n is a real
number"
                                                                                                                                                                                                                                           label= repeat_region
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New hybrid peptide(s) for binding cytokine(s) - comprising a malaria parasite peptide capable of binding a red blood cell and
                                                                                      a receptor peptide.
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Example A; Page 54-55; 93pp; English.

The special parameter of the state of blading to a red blood cell (RRC) and a receptor peptide are claimed. AAR70103-25 are examples of these hypotid peptides. AAR70108 is a fusion of thmour necrosis factor receptor in accordance with H Loctscher et al C21, Vol. 61, 351-359) and glycophorin binding protein (GBP) homologue (GBPH). The and glycophorin binding protein (GBP) homologue (GBPH). The cytokine captors not normally found on RBCs means that the cytokine can bind harmlessly to the RBC without deleterious effect. The RBC protects the hybrid peptides from excretion from the kidney, and due to steric hindrance prevents the cytokines binding to a receptor in another cell. GBP 130 or GBPH are the prefd, malaria parasite peptides used, others include EBA 175 (175 kDa erythrocyte binding antigen), PMMSA (pre major merozoite surface antigen) and the Duffy binding receptor molecule (eg. exhibited by plasmodium vivax). These peptides bind to pref. glycophorin A, B and C, sialo glycoproteins, found on the surface of RBCs. The hybrid peptides are thus used to lower the levels of free cytokines in the circulation to reduce pathological damage. Hybrid peptides for binding cytokines, comprising a malaria parasite

309 AA; Sequence

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Aliqum Pred. Score: Percen Best L Query DB:	Alignment Sc Pred. No.: Score: Percent Simi Best Local S Query Match:	Aliqument Scores: Pred. No.: Score: Percent Similarity: Best Local Similarity: Query Match:	4.66e-86 941.00 100.00\$ 100.00\$	Length: Matches: Conservative: Mismatches: Indels: Gaps:	309 161 0 0 0	
60-SD	9-882	-735-1 (1-483)	× AAR70108 (1-	-309)		
ò	1		CCCAAGGAAAATATATA	TCCACCCTCAAAATA	ATTCGATTTGCTGTACC	09
to to	20				AspSerValCysProGlnGlyLysTyrIleHisProGlnAsnAsnSerIleCysTyrI	39
ò	61		SAACCTACTTGTACA	ATGACTGTCCAGGCCC	CGGGGCAGGATACGGAC	120
Ob	40			snAspCysProGlyPr	LysCysHisLysGlyThrTyrLeuTyrAsnAspCysProGlyProGlyGlnAspThrAsp	59
ò	121		AGAGGGGTCCTTCA	CCGCTTCAGAAAACC	ACCTCAGACACTGCCTC	180
nb	60				CysArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLeu	42
ογ	181		GCCGAAAGGAAATGGC	GTCAGGTGGAGATCTC	CTTCTTGCACAGTGGAC	240
qq	80			lyGlnValGluIleSe	SerCysSerLysCysArgLysGluMetGlyGlnValGluIleSerSerCysThrValAsp	66
ò	241		GTGCCTGCAGGAAGA	ACCAGTACCGGCATTA	ATTGGAGTGAAAACCTT	300
DP.	100				ArqAspThrValCysGlyCysArgLysAsnGlnTyrArgHisTyrTrpSerGluAsnLeu	119
ò	301		ATTGCAGCCTCTGCC	TCAATGGGACCGTGC	TTCCAGTGCTTCAATTGCAGCCTCTGCTCAATGGGACCGTGCACCTCTCCTGCCAGGAG	360
e G	120		snCysSerLeuCysLe			139
ò	361		TGTGCACCTGCCATGC	CAGGTTTCTTTCTAAC	SAGAAACGAGTGTGTC	420
q	140		alCysThrCysHisA)	laglyPhePheLeuAr	LysGlnAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysVal	159
ò	421		STAAGAAAAGCCTGG	AGTGCACGAAGTTGTC	TCCTGTAGTAACTGTAAGAAAAGCCTGGAGGAGGAAGTTGTGCCTACCCCAGATTGAG	480
dO	160		ysLysLysSerLeuG	luCysThrLysLeuCy	SerCysSerAsnCysLysSerLeuGluCysThrLysLeuCysLeuProGlnIleGlu	179
ò	481	AAT 483				
1		=				

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Tumour necrosis factor receptor 1, TNFR-1, inhibitor, osteoprotequin, OPG, chimeric, fusion, dimerisation domain, autoimmune disease,
                                     Tumour necrosis factor bp/osteoprotegerin construct TNFbp/304
         AAW89229 standard; Protein; 311 AA.
                            04-MAR-1999 (first entry)
                  AAW89229;
RESULT 9
     AAW89229
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inflammation; apoptosis.

Homo sapiens. Synthetic.

WO9849305-A1.

05-NOV-1998.

98WO-US08631. 29-APR-1998;

97US-0850188. 01-MAY-1997;

(AMGE-) AMGEN INC.

Boyle WJ, Wooden S;

WPI; 1999-034661/03.

New chimeric osteoprotegerin polypeptides - contain the osteoprotegerin dimerisation domain and a heterologous sequence, useful to treat TNF and TNFR-mediated disorders

Example 1; Fig 4; 92pp; English.

The present invention describes a chimeric polypeptide (A1), computation on osteoprotegerin (OPG) dimerisation domain fused to a heterologous amino acid sequence. Also described are: (1) a multimer polypreptide comprising covalently associated A1 monomers (2) an isolated nucleic acid encoding A1, (3) an expression vector comprising the nucleic acid encoding A1, (4) a host cell transformed or transfected with the expression vector so that the nucleic acid is expressible. The product from the present inventon are useful to treat a variety of disorders including those related to receptor binding. Compositions comprising tundur necrosis factor (MYNP)/OPG and TWP receptor (TWPR)/OPG chimmer as are used to treat TNP and TNRP-mediated disorders such as inflammation, autoimmune diseases and disorders related to excessive apoptosis. The chimeras are also useful for detecting molecules which interact with the treat Companies sequences to identify potential new receptors and ligands. The present sequence tepersents a TNPEp/OPG construct from the example of the present invention for creating TNPEp/OPG fusion proteins

311 AA; Sequence

Alignment Scores:				
Pred. No.:	4.67e-86	Length:	311	
Score:	941.00	Matches:	161	
Percent Similarity:	100 00%	Conservative:	0	
Best Local Similarity.	100 00%	Mismatrhes.	Ú	
Query Match:	100.00%	Indels:	0	
DB:	20	Gaps:	0	

US-09-882-735-1 (1-483) x AAW89229 (1-311)

- g
- 61 AAGTGCCACAAAAGAACCTACTTGTACAATGACTGTCCAGGCCCAGGGCCAGAATATGACT 120 ò

180 Asn 180

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RESULT 10
AAW3 3600
1D AAW3
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                        A novel fusion protein comprises 2 dimer forming co-expressed amino acid sequences, each consisting of a homodimeric or heterodimeric receptor chain or ligand, with ligand-receptor binding activity, bound directly or via a peptide linker to a subunit of a heterodimeric protein hormone capable of forming a heterodimen with the hormone's other subunits. The fusion protein, e.g. the
                                                                                                                                                                                                                                                                                        Hybrid dimeric protein comprising two co-expressed units - each based on recepter or ligand and a subunit of a heterodimeric normone, especially FSH, for inducing follicular maturation
                                                                                                                                                                                                                                       Example: Pages 39-40; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qampbell RK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-FEB-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-AUG-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        beta subunit;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fusion protein; thrombopoietin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TBP(20-190)/hCG-beta fusion protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW33360 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (ISTF ) ARS APPLIED RES SYSTEMS HOLDING NV
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                                                                                                              Tumour necrosis factor receptor 1; TNFR-1; inhibitor; osteoprotegerin; OPG; chimeric, fusion; dimerisation domain; autoimmune disease;
                                                                                                                                                       Tumour necrosis factor bp/ostecprotegerin construct TNFbp/248
                                                                                                                                                                                     04-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (NCG beta) fusion protein denoted by the present sequence, significantly increases the biological activity of the hormone component, reducing the requirement for hormone itself and the number of injections needed.
                                                                                                inflammation; apoptosis.
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The present invention describes a chimeric polypeptide (A1), comprising an osteoprotegerin (OPG) dimerisation domain fused to a heterologous amino acid sequence. Also described are: (1) a multimer polypeptide comprising covalently associated A1 monomers; (2) an isolated nucleic acid encoding A1; (3) an expression vector comprising the nucleic acid encoding A1; (3) an expression vector and (4) a host call transformed or transfected with the expression vector so that the nucleic acid is expression vector so that the nucleic acid is expression the preducts from the present invention are useful to treat a variety of disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tumour necrosis factor (TNF)/OPG and TNF receptor (TNFR)/OPG chimeras are used to treat TNF and TNFR-mediated disorders such as inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    autoimmune diseases and disorders related to excessive apoptosis. The chimeras are also useful for detecting molecules which interact with fused heterologous sequences to identify potential new receptors and ligands. The present sequence represents a TWFbp/OPG construct from the example of the present invention for creating TWFbp/OPG fusion
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                                                                                                                                                                                                                                        Now chimeric osteoprotegerin polypeptides - contain the osteoprotegerin dimerisation domain and a heterologous sequence, useful to treat TNF and TNFR-mediated disorders
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                                                                                                                                                                                                                                                                                                                                Example 1; Fig 4; 92pp; English.
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e.g. Cost cells. The expressed proteins are useful problylactically and therapeutically to control disorders which involve the damaging effects of TNF alpha or -beta (e.g., infectious or parasitic diseases, shock, cachexia, autorimmune diseases, abult respiratory distress syndrome etc., or side effects of treatment with TNG-alphal. They can also be used as diagnostic reagents for see also AQ006282-Q06285.
                          161 LysGlnAsnThrValCysThrCysHisAlaGlyPheFheLeuArgGluAsnGluCysVal 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Clone pTNF-BP15 was used to contruct pADTNF-BP, for transfection of
                                                                                                                                                                                                                                                            Tumour necrosis factor binding protein, TNF-FBP, TNF-receptor, pTNF-BP15, infectious disease; parasitic disease, cachexia, autoimmune disease; shock.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         - used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tumour treatment and to understand mechanismsm to TNF action
                                                                                                                                                                                                                                      Tumour Necrosis Factor-Binding Protein from pTNF-BP15 cDNA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Fig 1(1-3); 51pp; German.
                                                                                                                                                         AAR07449 standard; protein; 371 AA.
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The present invention describes a chimeric polypeptide (A1), comprision of the present invention described and osteophycegetin (OPO) dimerisation domain fused to a heterologous uning graph Also described are: (1) a multimer polypeptide compliabily ovvaluntly associated A1 achimers, (2) an isolated nucleic
                                                                                                                                                                                                          Now Chimeric osteoprotegerin polypeptides contain the osteoprotegerin dimerisation domain and a heterologous sequence, useful to treat TNF and TNFR mediated disorders
                                                                                                                                                Example 1; Fig 4;
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(2) an isolated nucleic

Tumour mecrosis factor receptor 1; TNFR-1; inhibitor; osteoprotegerin;

Tumour necrosis factor bp/osteoprotegerin construct TNFbp/196.

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                                                                                                                                          AAW89226 standard; Protein;
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OPG; chimeric; fusion; dimerisation domain; autoimmune disease;
                                          inflammation; apoptosis.
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Homo sapiens.

Synthetic.

WO9849305-A1

29-APR-1998; 05-NOV-1998.

98WO-US08631

97US-0850188 C1-MAY-1997;

(AMGE.) AMGEN INC.

Boyle WJ, Wooden S;

WPI; 1999 034661/03.

New chimeric osteoprotegerin polypeptides - contain the esteoprotegerin dimerisation domain and a heterologous sequence,

useful to treat TNF and TNFR-mediated disorders

Example 1; Fig 4; 92pp; English.

The present invention describes a chimeric polypeptide (A1), comprising an osteoprotegerin (OPG) dimerisation domain fused to a heterologous amino acid sequence. Also described are: (1) a multimer polypeptide comprising occulently associated A1 monomers (2) an isolated nucleic acid encoding A1; (3) an expression vector comprising the nucleic acid sequence; and (4) a host cell transformed or transfected with the expression vector so that the nucleic acid is expressible. The products from the present invention are useful to treat a variety of disorders including those related to receptor binding. Compositions comprising turn the present invention are useful to treat a variety of disorders including those related to receptor binding. Compositions comprising turn our necrosis factor (TNF)/OPG and TNF receptor (TNFR)/OPG chimers are used to treat TNF and disorders related to excessive apoptosis. The chimers are also useful for detecting molecules which interact with ligands. The present sequence to identify potential new receptors and ligands. The present sequence represents a TNRPp/OPG construct from the example of the present invention for creating TNFPp/OPG fusion proteins

417 AA: Sequence

417	161	0	C.	c	0
Length:	Matches:	Conservative.	Mismatches.	Indels	Gaps:
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Alignment Scores: Pred. No.:	Score:	Percent Similarity:	Rest Local Similarity.	Ouery Match:	DB:

US 09 882:735 1 (1 483) x AAW89226 (1:417)

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- 121 TGCAGGGAFFFGAGAGCGGCTTCGTTCACGGCTTCAGAAAACGACTCAGACACTGCCTC 180 £ ું
- 181 AGCTGCTCCAAATGCCGAAAAGSAAATGGGTGGTGGAGATCTCTTGCACAGTGGAC 240 101 SerCysSerLysCysArgLysGluMetGlySluTleSerSerCysThrValAsp 120 ે
- 241 CGGGATTATGTGGTGTTGCAGGAAGAACGAGTACCGGGATTATTGGAGTGAAAACCTT 300

	301 TICCAGIGCTICAATTGCAGCCTCTGCCTCAATA33ACGTGCGCTCTCTCTGAAAAAAAAAA	141 PheGlnCysPheAsnCysSerLeuCysLeuAsnGlyThrValHisLeuSerCysGln510 169	361 AAACAGAACGACOSTGAACTGCCATGCAGGTTTCTTTCTAAGAGAAAACGAGGGTTTC 420	161 LysGlnAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysVal 180
121	301	141	361,	161
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481 AAT 483 ò

201 Asn 201

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RESULT 15

AAW89224 standard; Frotein; 420 AA.

AAW89224;

04-MAR-1999 (first entry)

Tumour necrosis factor bp/osteoprotegerin construct TNFLp/00%.

Tumour necrosis factor receptor 1, TNPR-1; inhibitor, osteoprotequrin, OPG, chimeric, fusion, dimerisation domain, autoimmune disease, inflammation, apoptosis.

sapiens Synthetic.

WO9849305-A1

05-NOV-1998.

98WO-TIS08631. 29-APP-1998; 97US-0850188. 01-MAY-1997;

(AMGE-) AMGEN INC.

Boyle WJ, Wooden S;

WPI; 1999-034661/03.

New chimeric osteoprotegarin polypeptides - contain the osteoprotegerin dimerisation domain and a heterologous sequence, useful to treat TNF and TNFR-mediated disorders

Example 1, Fig 4, 92pp; English.

The present invention describes a chimeric polypeptide (AI), computation an osteoprotegrain (OPG) dimerisation domain fused to a herotoloquous amino acid sequence. Also described are: (I) a multimor polypepide comprising covalently associated AI monomers; (2) an isolated mucleus acid encoding AI; (3) an expression vector computation the nucleus acid encoding AI; (3) an expression vector computation the nucleus acid expression vector with the expression vector so that the nucleus cid is expressible. The product from the present invention are useful to treat a variety of dissorders including those related to receptor binding Compositions computation tumour necrosis factor (TMF)/OPG and TMF receptor (TMFR)/OPG chimenas are used to treat TNP and TNPP-modiated disorders such as inflammation, autoimmune diseases and disorders related to excessive apoptosis. The chimeras are also useful for detecting molecules which interact with fused heterologous sequences to identify potential new receptors and ligands. The present sequence represents a TNFbpt/OPG construct from the example of the present invention for creating TNFbp/OPG fusion. proteins

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Alignment Scores:
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Percent Similarity:
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                                                                                                                                               181 AGCTOLTOLAAATSICOJAAASJAAATSJSTCASSTSSASATCTCTTGTTGCACASTSSAC 240
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                                                        AASIGOUACAAAGSAACCTACTISTACAAIGACTGICCAGSCCCGGGGCAGGATACGGAC 120
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                             Asn 201
                                                                                              AAT 483
                                                                                      LysGlmsnThrValCysThrCysHisAlaGlyPheFheLeuArgGluAsnGluCysVal
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941.00
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Mismatches:
Indels:
Gaps:
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Genfore version 5-1-3
Copyright (c) 1993 - 2003 Compugen Ltd.
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protein search, using frame_plus_n2p model OM nucleic

January 6, 2003, 03:41:57 ; Search time 14.5 Seconds (without alignments) 1960:175 Million cell updates/sec

115-09-882-735-1

Title: Perfect score:

....gretaneedagattgagaat 483 gatagtgtgtccccaagg... Sequence:

BLOSUM62 Scoring table:

Xgapop 10 0 , Xgapoxt Ygapop 10 0 , Ygapoxt Fgapop 6.0 , Fgapoxt Delop 6.0 , Delext

262574 seqs, 29422922 residues Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Command line parameters.

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MODEL=frame+ n.Pp.model DEV=xlh

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Database :

Issued_Patents_AA:*

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6: /cgn2_6/pt-dat-a/1/iaa/pcTUS_cMB_pcp.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

SCOTE 941 941 941 941 941 941	Ouery Match Length DB Atch Length DB 100 0 280 4 100 0 280 4 100 0 280 4 100 0 280 4 100 0 380 4 100 0 386 4 100 0 386 4	71h DB 71h DB 7280 3 2 2 8 0 4 4 2 2 8 0 4 4 2 2 8 0 4 4 4 2 8 0 4 4 4 4 5 3 3 6 4 4 4 5 5 1	ID US-08-374-2 US-08-974-022-46 US-08-795-445A-46 US-08-795-447A-46 US-08-795-447A-46 US-08-795-446-46 US-08-795-446B-46 US-08-991-81-17 US-08-910-991-8 US-08-910-991-8	Description Sequence 2, Appli Sequence 46, Appli Sequence 46, Appli Sequence 46, Appli Sequence 46, Appli Sequence 132, Appli Sequence 8, Appli Sequence 8, Appli Sequence 8, Appli
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900 95.6 900 95.6 842.5 89.5 842.5 89.5 837 88.9 837 88.9 822 87.4 746 79.3 746 79.3	53 4	US-08-477-347-12	=
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842.5 842.5 842.5 842.5 83.7 83.7 83.7 88.9 83.7 88.9 83.7 87.4 746 79.3 746 79.3	53 4	US-08-468:560C-4	Sequence 4, Apply
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837 822 822 746 746 79.3 746 79.3	7 4	US-08-804-166-4	Sequence 4, April 1
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17.7 12.	24 1	US-08-050-319B-4	4
1 77.7 12	24	US 08-465 982-4	4

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APPLICANT: Bendele, Alison M.
APPLICANT: Senello, Regina M.
APPLICANT: Senello, Regina M.
TITLE OF INVENTION: COMBINATION THEPATY USING A THE BINGING
TITLE OF INVENTION: PROTEIN FOR TREATING THE MEDIATRE DISPAGES
                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE Patentin Felease #1.6, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JMBER: US 60/039,315
07-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 60/036,355
FILING DATE: 23-AN-1997
FRIGR AFFLICATION DATA.
APPLICATION NUMBER: US 60/039,315
FILING DATE: 07-FBB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JMBER: UG/09/326,394
08-DEC-1997
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                                                                                                                                                                                                                                ADDRESSEE: Amgen Inc.
STREET: 1840 DeHavilland Drive
US-09-326-394-2; Sequence 2, Application US/09326394; Patent No. 6306820; GENERAL INFOPMATION:
                                                                                                                                                                                                                                                                                                                                                         COMPUTER: Floppy disk COMPUTER: IBM PC compatible SOFEMATING SYSTEM: PC-nocinity SOFTWARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 06-DEC-1996
PRIOP APPLICATION DATA.
                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
                                                                                                                                                                                                                                             STREET: 1840 Dence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AFFLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER.
                                                                                                                                              TITLE OF INVENTION.
TITLE OF INVENTION.
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                    91320-1789
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                                                                                                                                                                                                                                                                                                                   Sn
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Sequence 46, Application US/08974022
Patent No. 6015348
GENERAL INFORMATION.
APPLICANT: Boyle, Willaim J.
APPLICANT: Lacey, David L.
APPLICANT: Calzone, Frank J.
APPLICANT: Chard, Ming-Shi
TITLE OF INVENTION. OSTEODEROTEGERIN
NUMBER OF SEQUENCES: 53
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores:
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SEQUENCE CHAPACTEPISTICS:
LENGTH: 161 amino acids
TYPE: amino acid
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9-326-394-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 09-JUL-1997
ATTOENEY/AGENT INFORMATION:
NAME: Zindrick, Thomas K.
REGISTRATION NUMBER: 32,1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               No.:
                                                                                                                                                                                                                                                              161
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                                                                                                                                                                                                                                                                                                   AAT 483
                                                                                                                                                                                                                                                                                                                                       SerCysSerAsnCysLysLysSerLeuGluCysThrLysLeuCysLeuProGlnIleGlu 160
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STATE: California
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MEDIUM TYPE: Floppy disk
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                                                TCCTGTAGTAACTGTAAGAAAAGCCTGGAGTGCACGAAGTTGTGCCCTACCCCCAGATTGAG
                                                                                                                                                                                            TTCCAGTGCTTCAATTGCAGCCTCTGCCTCAATGGGACCGTGCACCTCTCCTGCCAGGAG
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                               SerCysSerAsnCysLysSerLeuGluCysThrLysLeuCysLeuProGlnIleGlu
                                                                                                     LysGlnAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysVal
                                                                                                                      PheGlnCysPheAsnCysSerLeuCysLeuAsnGlyThrValHisLeuSerCysGlnGlu
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Indels:
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APPLICANT: Chang, Ming-Shi
TITLE OF INVENTION: Osteoprotegerin
                                                                                                                                                                                                                                                                                                                                     US-08-795-447A-46
Sequence 46, Application US/08795447A
Patent No. 6284728
GENERAL INFORMATION
APPLICANT: Boyle, William J.
APPLICANT: Lacey, David L.
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One Amgen Center Drive
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MEDIUM TYPE: Floppy disk
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Matrhes:
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                                                                                                                                     APPLICANT: Boyle, Willaim J.
APPLICANT: Lacey, David L.
APPLICANT: Calzone, Frank J
APPLICANT: Chang, Ming-Shi
TITLE OF INVENTION: OSTEOPPOTEGERIN
NUMBER OF SEQUENCES: 53
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/08/795,445A
                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                ; Sequence 46, Application US/08795445A; Patent No. 6284485
                                                                                                                                                                                                                                                                                    1840 Dehavilland Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 08/577,788
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REFERENCE/DOCKET NIMBER:
INFORMATION FOR SEQ ID NO 4
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                                                                                                                      GENERAL, INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE:
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Mismatches:
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Alignment Scores:
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                                                                                                                                                                      REFERENCE/DOCKET NUMBER:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM FOC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CUBRENT APPLICATION DATA:
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APPLICANT: Lacey, David L.
APPLICANT: Calzone, Frank J.
APPLICANT: Chang, Ming-Shi
TITLE OF INVENTION. OSTECFROTEGERIN
                                                                                                                                                                                                                          ATTORNEY/AGENT INFOFMATION
                                                                                                                                                                                                                                                                PRICE APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
                                                           MOLECULE TYPE:
                                                                                                                                                       SEQUENCE CHARACTERISTICS:
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STRANDEDNESS: sir
TOPOLOGY: linear
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                                                                                                                 TYPE:
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CITY: Thousand Oaks
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                                                                                                                                                                                                                                                                                                                                FILING DATE
                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
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1840 Dehavilland Drive
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                                                                                                                                                                                                                                                                                                                                                                                             Patent No. 6288032
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 46, Application US/08795446B
                                                                                                                                                                                      STREET: 10% CITY: Thousand Oaks
STATE: California
                                                                                                                                                                                                                                                                                                                                         APPLICANT: Boyle, Willaim J.
APPLICANT: Lacey, David L.
APPLICANT: Calzone, Frank J.
                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: !
                                                                                                                                                                                                                                                                                                         APPLICANT: Calzone, Frank
APPLICANT: Chang, Ming-Shi
TITLE OF INVENTION: OSTEOP
PRIOR APPLICATION DATA:
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                 CLASSIFICATION
                                FILING DATE:
                                                  APPLICATION NUMBER:
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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Conservative:
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Mismatches:
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Matches:
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CURRENT APPLICATION NUMBER: US/08/706,945D
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APPLICANT: Lacey, David
APPLICANT: Calzone, Frank
APPLICANT: Chang, Ming-Shi
TITLE OF INVENTION: Ogteoprotegerin
APPLICATION NUMBER: 08/577,788 FILLING DATE: ATTORNEY/AGENT INPORMATION:
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                                                                   INFORMATION FOR SEQ ID NO: 46: SEQUENCE CHARACTERISTICS:
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                                       NAME: Winter, Robert B. REFERENCE/POCKET NIMBER:
                                                                                            LENGTH: 280 amino acids
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                                                                                                         amino acid
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Best Local Similarity:
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61. AAGTGGGACAAAGGAAGCTACTTGTACAATGACTGTTGTCAAGGGGGGAAGAGAAATACGGAAC 120
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Indels:
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STREET: 419 Seventh Street N.W., Ste. 300
CITY: Washington
                                                                                                                     Matches:
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APPLICANT: Jameson, Bradford A
APPLICANT: Chappel, Scott C.
TITLE OF INVENTION: HYBRID PROTEINS
NUMBER OF SEQUENCES: 22
PRIOR APPLICATION NUMBER: 08/577,788
PRIOR FILING DATE: 295 12 22
NUMBER OF SEQ ID NOS: 145
SOFTWARE: Patentin version 3.1
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Patent No. 6193972
GENERAL INFORMATION:
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                                                                  ORGANISM: Homo sapiens
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Query Match
DB:
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US-08-804-166-8
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                                       SEQ ID NO 132
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NAME: BICWAY, ROJER L.
RECIPTARTON MYMEE 25, C18
RESEMBLY POCKET MUMBER: CAMP
TELECOMMUNICATION INFORMATION.
TELEPHONE. (202) 737-3528
INFORMATION FOR SEQ ID NO: 8, SEQUENCE CHARACTERISTICS:
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OPERALING SISTEM: PC-DGS/MS-DGS
SOPTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/804,166
FILING DATE:
CLASSIFFOR
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PRICE APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
                                                                 361 AAACAGAACACCGTGTGCACCTGCCATGCAGGTTTCTTCTAAGAGAAAACGAGTGTGTC 420
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183 Asn 183
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(v)
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TOPOLOGY: linear
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CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                GUAGGAATTTAAGAGUGGUTUUTTUADOGUTTUAGAAAAACCACCTCAGACACTGCCTC 180
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Matches:
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Mismatches:
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; Patent No. 6194177
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US-08-910-991-8
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/804,166
FILING DATE: 20 February 1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/011,936
FILING DATE: 20 February 1996
ATTORNEY/AGENT INFORMATION:
NAME: YUN, Allen C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Campbell, Robert K.
APPLICANT: Jameson, Bradford A.
APFLICANT: Chappel, Scott C.
TITLE OF INVENTION: HYBRID PROTEINS
NUMBER OF SEQUENCES: 22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, Version #1.30 CUPPENT APPLICATION DATA: APPLICATION NUMBER: US/08/910,991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 37,971
REFERENCE/DOCKET NUMBER: CA
TELECOMMUNICATION INFORMATION:
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                       181 AGCTGCTCCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATCTCTTCTTGCACAGTGGAC 240
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COUNTRY: US
ZIP: 22207
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83 SerCysSerLysCysArgLysGluMetGlyGlnValGluIleSerSerCysThrValAsp 102
                                                                                                                                      43 LysCysHisLysGlyThrTyrLeuTyrAsnAspCysFroGlyProGlyGlnAspThrAsp
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                                                                                                                                                                      61 AAGTGCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCAGGATACGGAC 120
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(202) 737-3528
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421 TCCTGTA7TAACTGTAA3AAAGCCTGGAGTGCACGAAGTTGTGCCTACCCCAGATTGAG 480
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241 COGGACACIGITATORITICATORISABABAACOAGIAACOATAATIBISAGIBAAAACOIT
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APPLICANT: M.C. Tutner, F.M. Gray,
APPLICANT: M.C. Tutner, F.M. Brennan
TITLE OF INVENTION: Modified human TNFalpha (Tumor
TITLE OF INVENTION: Necrosis Factor alpha) Receptor
NUMBER OF SEQUENCES: 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/050, 119R
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Mismatches:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: (415) 617-8999
TELEPAX: (415) 327-3231
INCRMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Reed & Robbins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Robbins, Roberta L. REGISTRATION NUMBER: 33,2 REFERENCE/POCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                635 Bryant Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10 May-1993
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California
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361 AAACAGAACGACGTGCACCTGOCACGAGGTTTCTTTCTAAGAAAAAAAAAGAGGCTC 420
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                                                     AAGTGCCACAAAGGAACCTACTTGTACAATGACTGTGGAGGCTGGGGGCAGGATACGGAC 1.24
                                                                                                                    TGCAGGGAGTGTGAGAGGGGGTTGATCAGGTTTCAGAAAAACTAGGTCAGACA(TGCTTA) 180
                                                                                                                                     181 AGCTGCTCCAAATGCCGAAAGGAAATGGGTCAGAGTGGAGATGTCTTCTTGCAGAGACGAC
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41 AspserValCysProSlnSlyLysTyrIleH18ProvilnAsuAsuSorIllovy@vyvThb 60
                                                                                      61 LysCysHisLysGlyThrTyrLeuTyrAsnAspCysProGlyProGlyGlnAspTHAOP 80
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419 Seventh Street, N.W., Suite 300
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-628-5197
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APPLICATION NUMBER - US/08/321,668
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: IL 107268
FILING DATE: 12-OCT-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 2, Application US/08321668
Patent No. 5665859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: WALLACH, David
APPLICANT: BRAKBUSCH; Cord
APPLICANT: VARPOLOMEEV, EUGENE
APPLICANT: BATKIN, Michael
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CLASSIFICATION: 435
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USA
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TELEFAX: 2
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US-C8-837-941-2; Segmence 2, Application US/08837941
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                                                    PATENT NO. 576917

GENERAL INFORMATION:
APPLICANT: WALLACH, David
APPLICANT: WALLACH, Cord
APPLICANT: BATKIN, Michael
TITLE OF INVENTION. MOLECULES INFLUENCING THE SHEDDING OF
TITLE OF INVENTION: THE THE PETEPTTPS, THEIP PREPARATION AND THEIR USE
NUMBER OF SEQUENCES: 42
CORRESPONDENCE ADDRESS:
ADDRESSEL BROWNY AND MEMBER OF
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INFORMATION FOR SEC ID NO: :
ESQUENCE CHARACTERISTICS:
LENGTH: 455 amino acids
TYPE: amino acid
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SIKEEI:
CITY: Wa
STATE: E
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TOPOLOGY: linear
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
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APPLICATION NUMBER: US US/321,6
FILING DATE: 12-OCT-1994
APPLICATION NUMBER: IL 107268
FILING DATE: 12-OCT-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: BROWDY, ROGER L.
REGISTRATION NUMBER: 25,618
REFERENCE/DOCKET NUMBER: WALLACH=13
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-628-5197
TELEPAX: 202-737-3528
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 455 amino acids
SerCysSerAsnCysLysSysSerLeuGluCysThrLysLeuCysLeuProGlnIleGlu
             TCUTGTAGTAACIGTAAGAAAGGCCTGGAGTGCAGGAAGTTGTGCCCTACCCCAGATTGAG
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Pred. No.:
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US-08-465-982-25
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE PARENTING RELease #1 0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/126,016
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Mismatches:
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419 Seventh Street, N W , Suite 300
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REFERENCE/DOCKET NUMBER - WALLACH4
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FILING DATE: 13-DEC-1990
ATTORNEY/AGENT INFORMATION:
                                                                                                                              BESUL: 1.

18:08-126-016-2

1 Sequence 2, Application US/08126016

1 PATENT NO. 5811261

1 GENERAL INFORMATION:
1 APPLICANT: NOPHER, YARON
1 APPLICANT: REMPER, OLIVER
1 APPLICANT: REMPER, OLIVER
1 APPLICANT: REMPER, OLIVER
1 APPLICANT: BNGELMANN, HARTHUT
1 APPLICANT: APPLICANT: GORD
1 APPLICANT: APPLICANT: CORD
1 APPLICANT: APPL
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INFORMATION FOR SEQ ID NO: 2:
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TELEFAX: 202-737-3528
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REGISTRATION NUMBER: 2
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LENGTH: 455 amino acid
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481 AAT 483
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81 CysArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLev 100
                                                                                                         APPLICANT: M.Feldmann, P.W. Gray,
APPLICANT: M.J.C. Turner, F.M Brennan
TITLE OF INVENTION: Modified human TNFalpha (Tymor
TITLE OF INVENTION: Necrosis Factor alpha) Receptor
NUMBER OF SEQUENCES 57
CORRESPONDENCE ADDRESS:
ADDRESSEE Reed & Robbins
STREET: 633 Bryant Street
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SOFTWARE: PatentIn Release #1.0, version #1.25
CURRENT APPLICATION DATA:
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REGISTRATION NUMBER: 33,208
PEFERENCE/DOCKET NIMBER: 5150-0030
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APPLICATION NUMBER- US/08/050,319
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TELEPHONE: (415) 617-8999
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INFORMATION FOR SEQ ID NO: 25:
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LENGTH: 455 amino acide
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MEDIUM TYPE: Floppy
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STATE: California
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Best Local Similarity:
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Patent No. 6153402
GENERAL INFORMATION
                                                                                                                                                                                                                                                                                       APPLICANT: Yu, Guo-Liang
APPLICANT: Mi, Jian
APPLICANT: Dxit, Vishva
APPLICANT: Bentz, Reiner L.
APPLICANT: Bollion, Patrick J.
TITLE OF INVENTION: Fresh Formain Confaining Receptors
NUMBER OF SEQUENCES: 17
CORPESPONDENCE ADORESS:
                                                                             COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PO POUS MS-DUS

SOFTWARE: Patentin Release #1.0, Version #1.30

CUBRENT APPLICATION DATA:
              APPLICATION NUMBER: FILING DATE: HEREWITH CLASSIFICATION: 425
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                           STREET: 1100 New
CITY: Washington
APPLICATION NUMBER.
                                                                                                                                                                                                                                                                               ADDRESSEE:
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1100 New York Ave , NW, Snite 600
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No. 6153402 Yet Assigned
                                                                   US/08/815,469
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Best Local Similarity:
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REFERENCE/OCCKET NUMBER: 144
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
TELEFAX: 202-371-2540
INFORMATION FOR SEQ ID NO: 5:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AFFLICATION NUMBER. US 6:
FILING DATE: 12-MAR-1996
ATTORNEY/AGENT INFORMATION:
NAME: Steffe, Eric K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 06-FEB-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/028,711
FILING DATE: 17-0CT-1996
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                    121
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STRANDEDNESS: not relevant
TOPOLOGY: not relevant
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 SATASTSTSTSTSCSCCAASGAAATATATCCACCCTCAAAATAATTAGATTTSCTTSTACC
                             AAT 483
                                                                            TCCTGTAGTAACTGTAAGAAAAGCCTGGAGTGCACGAAGTTGTGCCTACCCCAGATTGAG 480
                                                                                                                                           TTO:AATSTTT:AATTIGEAGOUTUTGCCTUAATGGGACCGTGGCACCTCTCUTGCCAGGAG
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Asn
                                                             SerCysSerAsnCysLysLysSerLeuGluCysThrLysLeuCysLeuProGlnIleGlu
                                                                                                                         LysGlnAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysVal
                                                                                                                                                                                        PheGlndysPheAsndysSerLeudysLeuAsnGlyThrValHisLeuSerdysOlnGlu
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201
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Search completed: January 6, 2003, 03.46:26 Job time: 20.5 secs

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GenCore version 5-13
Copyright (c) 1993 - 2003 Compugen Ltd.
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protein search, using frame_plus_n2p model

(without alignments) 629.582 Million cell updates/sec January 6, 2003, 63-44-00 ; Search time 29.5 Seconds Run on:

US-09-882-735-1 941 Title: Perfect score:

gcotacoccagattgagaar 483 1 gatagtgtgtgtnopnaagg Sequence:

BLOSUM62 Scoring table:

Ygapop 10 0, Xgapext Ygapop 10 0, Ygapext Fgapop 6.0, Fgapext Delop 6.0, Pelext

117078 segs, 18951520 residues Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DP seq length: 200000000

Post processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Command line parameters:

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MODEL-frame+ nZp-model -DEV=xlh

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O-/cant2 1/USFTO spon//USO-ARA-7-15/runa+ 03012003 073946_15321/app_query fasta_1 647

UN-FRANC-Published Applications AA -OPMT-fastan -SUPPTX-rapb -MINAMATCH-0.1

LAODCH-A- 1-OPPRTA-- -UNITS-bits -START-1 - END=-1 -MATRIX-Blosum62

THRANG-Published Applications AS -DO-ALIGN-SOO, THE SCORE-pot -THP MAX-10,

THR MIN-O -ALIGN-15 -MODE-LO-ALIGN-STOO, THE SCORE-pot -THP MAX-10,

MAXLEN-ZOOGOO-OPOT -USEP-PEOSP-S -GCN 1 1 2 - Grunat 0301203 073946_15321

MCPU-6 -LICPU-3 -NO XLPXY -NO MAXD-LADGEQUEPY -NEG SCORES-0 -WAIT -LONGLOG

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FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7

Database :

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	Sequence 4, Appli Sequence 4, Appli Sequence 4, Appli Sequence 4, Appli
ID	161 9 US-09-898-234-4 161 9 US-09-898-234-4 161 9 US-09-792-356-4 161 10 US-09-899-422-4
* Query Match Length DB ID	161 9 161 9 161 9 161 9
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Score	941 941 941 941
Result No.	ल हार ‴ च

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 4

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US-09-907-263- US-09-899-429A-	10 US-09-798-789 9 10 HS-09-798-789-22	US-09-899-429A-	9 US-09-899-429A-16 9 HS-09:899-429A-10	US-03 833 423A	US-09-899-429A-1	US 09 899 429A	US-09-899	US-10-125-062-1	US-09-756-186-	11S-00-808-234-1	US-09-792 356-12	US-09-899-42	US 09 898	US-09 898 234	US-09-756-854-	-668-60-SN	TIS-09-899-429A	US-10-041	-09-792-356-	US-09-792	0 US-09-826-212-	0 US-09-333-9	0 11S 09 027 2	0 US-09-874:1	0 US-09-840 70	0 US-09-252-656B	0 US-09-899-422-	0 US-09-899-42	US-09-935-72	2 US-10:005-	116 10 150 307	0 118-00-798-789-2	429 APP PO SI	.09 798 789 2	0 115-09-756-18	S 09-798-7	9 US 10 112-793 21
161 152	162 162	172	173	0 00	200	201	211	213	336	371	371	371	455	4 5 5	455	455	455	455	455	455	455	455	45.0	455	455	455	455	455	455	455	45.	162	171	162	285	162	197
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APPLICANT: Himmler, Adolph
APPLICANT: Hammler, Adolph
APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: The Receptors, TNF Rinding Proteins and DNAs Coding 10:3
TITLE OF INVENTION: The
FILE REPERBORCE: 98,385-1
FILE REPERBORCE: 98,385-1
CTRRENT APPLICATION NUMBER: US/09/898,234
CTRRENT FILING DATE: 2001-07-03 PRIOR APPLICATION NUMBER 08/383,676
PRIOR PILING DATE: 1995-02-01
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR FILING DATE: 1993-11-17
PRIOR PILING DATE: 1992-01-02
PRIOR PILING DATE: 1990-04-20 PRIOR APPLICATION NUMBER: 09/525,998 PPIOP FILING DATE: 2000-03-15 Sequence 4, Application US/09898234 Patent No. US20020155112A1 APPLICANT: Hauptmann, Rudolph NUMBER OF SEQ ID NOS: 87 GENEPAL INFOPMATION. US-09-898-234-4

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APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Stratowa, Christian
FITLE OF INVENTION: THE Receptors, TNF Binding Froteins and DNAs Coding for
FITLE OF INVENTION: Them
FILE REFERENCE: 98-385-U
CUMPREM FILING DATE: 2001-07-03
FEIGH AFFLICATION NUMBER: 09/792,356
FEIGH AFFLICATION NUMBER: 09/792,356
FRIOR FILING DATE: 1955-06-07
PRIOR FILING DATE: 1955-01-17
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APPLICANT: Himmler, Adolph
APPLICANT Maurer-Fogy, Ingri
APPLICANT: Stratowa, Christia
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APPLICATION NUMBER: 07/821,750
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CURRENT APPLICATION NUMBER: US/09/792,356
CURRENT FILLYS DATE. 2001-08-17
PRIOR APPLICATION NUMBER: 08/477,639
PRIOR FILING DATE: 1995-06-07
                                                                                                                            APPLICANT: Hauptmann, Rudolph
APPLICANT: Himmler, Adolph
APPLICANT: Maurer-Pogy, Ingrid
AFFLICANT: Stratowa, Christian
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PRIOR APPLICATION NUMBER: 07/511,430
PRIOR FILING DATE: 1990-04-20
NUMBER OF SEQ ID NOS: 97
SOFTWARE: Patentin Ver. 2.0
                                                                                          TITLE OF INVENTION: THE Receptors, THE Binding Proteins and DNAs Coding for TITLE OF INVENTION: Them
                                                                          FILE REFERENCE: 98,385-G
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TYPE: PRT
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FILE REFERENCE: 98,385-H

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APPLICANT: Hauptmann, Rudolph
APPLICANT: Himmler, Adolph
APPLICANT: Maurer-Fooy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: The Receptors, TNF Binding Proteins and DNAs Coding for TITLE OF INVENTION: Them
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PPIOR APPLICATION NUMBER: 08/383,676
PPIOR PILING DATE: 1994-07-01
PPIOR APPLICATION NUMBER: 09/153,287
PPIOR PILING DATE: 1993-11-17
PPIOR PILING DATE: 1993-01-02
PPIOR APPLICATION NUMBER: 07/511,410
PPIOR APPLICATION NUMBER: 07/511,410
PPIOR PILING DATE: 1990-04-20
NUMBER: 0F SEQ ID NOS: 87
SSCTUD NO 4
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; Patent No. US20020090676A1
; GENERAL INFORMATION:
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Matches:
CURRENT FILING DATE. 201594
CURRENT FILING DATE. 2016-8-21
PPROF APPLICATION NUMBER-09/525,998
PRIOR FILING DATE. 2010-8-31
PRIOR PLING DATE. 1045-02-11
PRIOR APPLICATION NUMBER: 08/183,676
PRIOR PLING DATE: 1993-11-17
PRIOR PILING DATE: 1993-11-17
PRIOR PILING DATE: 1993-11-17
PRIOR PILING DATE: 1992-01-02
PRIOR PILING DATE: 1992-01-02
PRIOR PILING DATE: 1992-01-02
PRIOR PILING DATE: 1990-04-20
NUMBER OF SEC ID NOS: 87
SEC ID NO 4
SEC ID NO 4
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Patent No. US20020119924A1
GENERAL INFORMATION
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                                                                                                                                                                                                                                                                                                                                                                    | GATAGTGTGTGTGCCCAAGGAAAATATATGCAGCCTCAAAAATAATTCGATTTGCTGTACC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER. US 60/052,023
FILING DATE: 09-JUL-1997
ATTORNE/AGENT THROPMATICH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear MOLECULE TYPE: protein ; SEQUENCE SESCRIPTION ;
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TITLE OF INVENTION: COMBINATION THERAPY USING A THE BINDING PROTEIN FOR TREATING THE-MEDIATED DISEASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 32,185
REFERENCE/DOCKET NUMBER: A-430D
MATION FOR PEC ID MO. 2:
SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Floppy disk
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                        ArgAspThrValCysGlyCysArgLysAsnGlnTyrArgHisTyrTrpSerGluAsnLeu 100
                                                                              SerCysSerLysCysArgLysGluMetGlyGlnValGluIleSerSerCysThrValAsp
                                                                                                                         AUCTECTOCAAATGCCGGAAAGGAAATGGGTCAGGTGGAGATCTCTTCTTGCACAGTGGAC 240
                                                                                                                                                                                                                                                                                                  AAGT OOONOAAAOOTAACTTSTACAATGACTGTCCAGGCCCGGGGCAGGATACGGAC 120
                                                                                                                                                                                                                                                                                                                                             AspSerValCysProGlnGlyLysTyrIleHisProGlnAsnAsnSerIleCysCysThr 20
                                                                                                                                                                                                               TOTAGGUAGTUTGAGAGOUSCITCCITCACCGCTTCAGAAAACCACCTCAGACACTGCCIC 180
                                                                                                                                                                    CysArgDluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 09/326,394
FILING DATE: 1999-06-04
APPLICATION NUMBER: US 60/036,355
FILING DATE: 23-JAN-1997
AFFLICATION NUMBER: US 60/039,315
FILING DATE: 07-FEB 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/09/907,263
FILING DATE: 17 Jul 2001
CLASSIFICATION: «Unknown»
APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: Amgen Inc.
STREET: 1840 DeHavilland Drive
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Conservative:
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TITLE OF INVENTION: TNF meceptors, TNF Binding Proteins and DNAs Coding for
TITLE OF INVENTION. Them
FILE REFERENCE: 98-385-J
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SOFTWARE: PatentIn Ver. 2.0
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PRIOR FILING DATE: 1993-11-17
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR FILING DATE: 1992-01-02
PRIOR FILING DATE: 1992-04-20
PRIOR FILING DATE: 1990-04-20
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PRIOR AFELICATION NUMBER. 08/477,639
PRIOR FILING DATE: 1955-06-07
PRIOR APPLICATION NUMBER. 08/383,676
PRIOR FILING DATE: 1995-02-01
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CURRENT FILING DATE: 2001-07-03
PRIOR APPLICATION NUMBER: 09/732,356
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Artificial Sequence
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                      121 TGCAGGGAGTGTGAGAGCGGCTCCTTCACCGCTTCAGAAAACCACCTCAGACACTGCCTC
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                                                                              61 AAGTGCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCAGGATACGGAC
                                                                                                                                     2 AspSerValCysProGlnGlyLysTyrIleH1sProGlnAsnAsnSerIleCysCysThr
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                                                         LysCysHisLysGlyThrTyrLeuTyrAsnAspCysProGlyProGlyGlnAspThrAsp
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Maurer-Fogy, Ingrid
The Towa, Christian
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181 ABCTBCTCTAAATBCCGAAAABSAAATBCGTCGTTCTTGCACAGTGGA 240
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APPLICANT: Dahlyat, Rassil
APPLICANT: Dahlyat, Anton
TITLE OF INVENTION: DESIGN AND DISCOVERY OF PROTEIN BASED TNF-ALPHA
TITLE OF INVENTION: VARIANTS FOR THE TPEATMENT OF TWE ALFHA PELATED
TITLE OF INVENTION: DISCORDERS
FILE REFERENCE: A-64940-1/PRT/RMS/PMK
CURRENT APPLICATION NIMBER: US/03/798, 789
CURRENT FILING DATE: 2001-03-02
PRIOR APPLICATION NUMBER: US 60/186,427
REPORT APPLICATION NUMBER: US 60/186,427
REPORT APPLICATION NUMBER: US 60/186,527
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Mismatches:
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; Patent No. US20020009780A1
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Best Local Similarity;
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                                                           82 ArgAspThrValCysGlyCysArgLysAsnGlnTyrArgHisTyrTrpSerGluAsmLen 101
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62 SerCysSerLysCysArgLysGluMetGlyGlnValGluIleSerSerCysThrValAsp #1
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TITLE OF INVENTION: DESIGN AND DISCOVERY OF PROTEIN BASED THE ALFHA
TITLE OF INVENTION: UARLANTS FOR THE TREATMENT OF THE ALFHANT
TITLE OF INVENTION: DISORDERS
FILE REPRESENCE: A 68990-1/RETYRMS/RMK
CUPPENT APPLICATION NUMBER: US/04/708,789
FILOS APPLICATION NUMBER: US 66/186,427
PRIOR APPLICATION NUMBER: US 66/186,427
NUMBER OF SEQ ID NOS: 22
                            2 AspSerValCysProGlnGlyLysTyrIleHisProGlnAsnAsnSerIleTysTyrTh
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LENGTH: 162
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CUERENT APPLICATION NUMBER US/09/809,429A
CUERENT FILING LACE: 2001-97-93
PRIOR APPLICATION NUMBER: 2001-97-93
PRIOR FILING DATE: 2000-92-23
PRIOR PRILING DATE: 1995-06-07
PRIOR PRILING DATE: 1995-06-07
PRIOR PRILING DATE: 1995-02-23
PRIOR APPLICATION NUMBER: 08/383,676
PRIOR APPLICATION NUMBER: 08/383,676
PRIOR FILING DATE: 1995-11-17
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR PRILING DATE: 1993-11-17
PRIOR APPLICATION NUMBER: 07/91,770
PRIOR FILING DATE: 1990-01-20
PRIOR FILING DATE: 1990-04-20
NUMBER OF SEQ ID NOS: 97
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GENERAL INFERMATION
APPLICANT: Haupemann, Rudol
APPLICANT: Himmler, Adolph
APPLICANT: Maurer: Fugy, In
APPLICANT: Ctratowa, Chris
                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 20
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                                                 GATAGTGTGTGTCCCCAAGGAAAATATATCCACCCTCAAAATAATTCGATTTGCTGTACC 60
                    AASTSCCACAAASSAACCTACTTSTACAATSACTSTCCAGSCCCGGGGCAGSATACGGAC 120
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Maurer Fogy, Ingrid
Otratowa, Christian
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Query Match:
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US-09-899-429A-16
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                                                Best Local Similarity:
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PRIOR FILING DATE: 1993-11-17
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR FILING DATE: 1992-01-02
PRIOR FILING DATE: 1990-04-20
PRIOR FILING DATE: 1990-04-20
NUMBER OF SEQ ID NOS: 97
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AFFLICANT: Hampler, Adolph
APFLICANT: Maurer-Fogy, Ingrid
Thirdant: Maurer-Fogy are a constant of the control o
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CURRENT FILING DATE: 2001-07-03
FFIOP AFFLICATION NUMBER. 09/792,356
FRIOR FILING DATE: 2000-02-23
FRIOR AFFLICATION NUMBER: 06/477,639
PRIOR FILING DATE: 1955-06-07
PRIOR PILING DATE: 1955-06-07
PRIOR FILING DATE: 1955-06-01
PRIOR FILING DATE: 1995-02-01
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                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
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    4.45e-80
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APFLICANT: Himmler, Adolph
APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: THE Receptors, TNF Binding Proteins and DNAs Coding for
FILE RFFERENCE: 98-385-J
                                                                                                                                                                                                                                                                                         61 AAGTGCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGGCCGGGGGAGGATACGGAC 120
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                                                                    53 CysArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLeu 72
                               US 09 882 735-1 (1-483) x US-09-899-429A-16 (1-173)
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CURRENT FILING DATE: 2001-07-03
PRIOR PLING DATE: 2000-02-23
PRIOR PLING DATE: 2000-02-23
PRIOR PLING DATE: 1955-06-07
PRIOR PLING DATE: 1955-06-07
PRIOR PLING DATE: 1995-02-01
PRIOR APPLICATION NUMBER: 08/181,676
PRIOR PLING DATE: 1995-02-01
PRIOR PLING DATE: 1995-02-01
PRIOR PLING DATE: 1993-11-17
PRIOR PRIUNG DATE: 1993-11-17
PRIOR PRIUNG DATE: 1993-01-02
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR PLING DATE: 1992-01-02
PRIOR PLING PAPEL PRIOR DATE: 1992-01-02
Gaps:
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Patent No. US20020169118A1
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ORGANISM: Artificial Sequence
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APPLICANT: Himmler, Adolph
APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: Them
FILE REFERENCE: 98-38-J
CURENT APPLICATION NUMBER: US/09/899,429A
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Conservative:
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PRIOR APPLICATION NUMBER: 08/477,639
PRIOR PILING DATE: 1955-06-07
PRIOR APPLICATION NUMBER: 08/183,676
PRIOR FILING DATE: 1995-02-01
PRIOR PELLING DATE: 1995-022-01
PRIOR FILING DATE: 1995-02-01
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PRIOR APPLICATION NUMBER: 09/792,356
PRIOR FILING DATE: 2303-02-23
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             INFORMATION: TNF-BP sequence
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 OTHER INFORMATION:
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                                                                                          Percent Similarity:
                  ; OTHER INFORMAT
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                                                      Alignment Scores:
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Sequence L., Application US/C/99/413A
Patent No. US/0/20/69/118A1
GENERAL INFORMATION:
APPLICANT: Hauptmann, Rudolph
APPLICANT: Hauptmann, Rudolph
APPLICANT: Maurer-Fogy, Ingrid
AFFLICANT: Stratowa, Christian
TITLE OF INVENTION: Them
FILE REFERENCE: 98-385-0
CUERERIT AFFLICATION EXTREEF. US/C9/939,429A
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FAICE WIFTLANT: NYMBER 77/FIL,430
PRIOR FILING DATE: 1990-04-20
NUMBER OF SEC TO NOS 97
SCHTWARE: Patentin Ver, 2.0
SEC ID NO 18
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PRICE APPLICATION NUMBER: 39/792,356
PRIOR FILING DATE: 2000-02-23
PRIOR FILING DATE: 1955-06-07
PRIOR APPLICATION NUMBER: 08/437,639
PRIOR FILING DATE: 1955-06-07
PRIOR APPLICATION NUMBER: 08/383,676
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR FILING DATE: 1993-11-17
PRIOR FILING DATE: 1993-10-02
PRIOR FILING DATE: 1992-01-02
PRIOR FILING DATE: 1992-01-02
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SOFTWARE: PatentIn Ver. 2.0
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TYPE: PRT
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Asn 190
                                AAT 483
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US-09-899-429A-14

Sequence 14, Application US/09899429A

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PRIOR PLING DATE. 2000.02.23
PRIOR PELING DATE. 2000.02.23
PRIOR PELING DATE. 1956.06.07
PRIOR PLING DATE: 1955.06.07
PRIOR APPLICATION NUMBER: 08/38,676
PRIOR APPLICATION NUMBER: 08/183,676
PRIOR PLING DATE: 1993.01.17
PRIOR PILING DATE: 1993.01.17
PRIOR PILING DATE: 1993.01.32
PRIOR PILING DATE: 1993.01.32
PRIOR PILING DATE: 1990.04.20
PRIOR APPLICATION NUMBER: 07/811,430
PRIOR PILING DATE: 1990.04.20
PRIOR SEQ ID NOS: 97
SOFTWARE: PATENTIN NUMBER: 07/511,430
SOFTWARE: PATENTIN NUMBER: 07/511,430
SOFTWARE: PATENTIN NUMBER: 07/511,430
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                                                                                                                APPLICANT: Maurer-Eogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: The Receptors, TNF Binding Proteins and DNAs Coding for
TITLE OF INVENTION: The Receptors, TNF Binding Proteins and DNAs Coding for
TITLE OF INVENTION: The RECEPTOR STREET OF THE STREET 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41 AspSerValCysProGlnGlyLysTyrlleHisProGlnAsnAsnSerlleCysCysThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GATAGTGTGTCCCCCAAGGAAATATATCCACCTCAAAATAATTCGATTTGCTGTACC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: Description of Artificial Sequence: recombinant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US:09 882:735:1 (1-483) x US-09-899-429A-14 (1-201)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Artificial Sequence
                                                         APPLICANT: Hauptmann, Rudolph
APPLICANT: Himmler, Adolph
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Patent No. US20020169118A1
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                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
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APPLICANT: Hauptmann, Rudolph
APPLICANT: Himmler, Adolph
APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: The Receptors, TWF Binding Proteins and DMAR Coding for
FILE REFERENCE: 99-385-J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ξ.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: Description of Artificial Sequence: recombinant OTHER INFORMATION. TWF-BP sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCTGCTCCAAATGCCGAAAGGAAATG33T;7A33TG3AGATGTTCTTGUACAGTGGA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches:
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Ob 141 PheGlinCysPhaAshCysSeileuCysLeuAshGlyThrValHisLeuSerCysGinGlu 160

Ob 141 PheGlinCysPhaAshCysSeileuCysLeuAshGlyThrValHisLeuSerCysGinGlu 160

Oy 361 AAAAAAAAAACACGTTTGCAACTTGCAAFGAGAAAAACGAGTTTGTTAAGAAAAACAAGTTTGTTAAGAAAAACAAGTTTTGTAAGAAAAACAAGTTTGTTAAGAAAAACAAGTTTTGTAAGAAAAACAAGTTTTTTCTAAGAAAAACAAGTTTTTCTAAGAAAAACGAGTTTTTC 420

Ob 161 LysGlinAshThrValCysThrCysHisAlaGtyPhePheLeuArgGluAshGluCysVal 180

Cy 42) PreprincipaactaaGtaAaaaccTtgGagtaGaaGtTGAG 480

Ob 191 CorCysCorAshCysLysLysSerLeuSluCysThrLysLeuCysLeuProGlinIleGlu 200

Oy 481 AAT 483

Db 201 Ash 201

Search completed: January 6, 2003, 03:47:38

Job time: 33.5 secs
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Genfore version 5 1 3
(c) 1993 - 2003 Compugen Ltd.
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OM nucleic - protein search, using frame_plus_n2p model

Run on:

(without alignments) 3714.634 Million cell updates/sec January 6, 2003, 03-02-28 ; Search time 25 Seconds

Perfect score.

geotadedeagattgagaat 483 1 gatagtgrgrgrcccaagg Sequence:

BLOSUM62 Scoring table:

lo o , Ygapext 6.0 , Fgapext 6.0 , Delext Xgapop 10.0 , Xgapext Ygapop 10.0 , Ygapext Frapop

281224 segs, 96134422 residues

Delop

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match O% Maximum Match 100% Listing first 45 summaries

Command line parameters:

pirl:* pir2.* pir3:* pir4:* PIP 73.* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		صد				
Result.	Score	Query Match	Query Match Length DB	DB	ID	Description
-	941	100.0	455		GOHUT1	tumor necrosis fac
C	716.5	76.1	461	C.	JC4302	tumor necrosis fac
~	680	72.3	454	7	GOMST1	tumor necrosis fac
4	699	71.1	461	٦	GORTT1	
ŗ,	187.5	19.9	435	C1	154182	tumor necrosis fac
9	182.5	19.4	427	7	GOHUN	nerve growth facto
	181	19.2	474	C)	B38634	tumor necrosis fac
Œ.	179.5	19.1	***)	-	GQVZML	T2 protein - myxom
6	178	18.9	177	C1	B43692	T2 protein - rabbi
10	176.5	18.8	4	-	A26431	nerve growth facto
11	176	18.7	459	7	148854	gene murine tumour
1.2	167.5	17.8	305	~	A46476	B cell-associated
13	166.5	17.7	***	C3	D72175	G2R protein - vari
14	164	17.4	348	C)	T28623	hypothetical prote

gene 64R profein	apoptestis mediatin	tumor necrosis fac	death receptor 6	trophogente cystes	Fas antiqen predur	nerve growth facto	furin (EC 3.4.21.7	CD27 antigen precu	CD27 antiqen precu	Becell activation	serine proteinane	subtilisin like pr	subtilism like pr	gene ex40 protein	FAS soluble prote:	apoptosis mediatin	CD30 antiqen precu	hypothetical prote	probable Laminin a	OX40 antique precu	probable transcrip	activator of CAMP	~	furin (EC 4.4.21.7	hypothetical profe-	OX40 homolog hum	easking protein pr	four and a half L.	subtilisin like pr	notch 4 protein
D36858	A46484	A35356	JC7705	C42125	JG2395	JN0006	A43434	A49053	A46517	A60771	534583	G02428	JC6148	148700	137383	A40036	A42086	T23433	T37316	512783	A48830	JC7686	T43251	S43656	T27283	137552	A38261	JC6565	A48225	S45306
~	C1	-	7	C1	c i	Н	¢1	-		CI	C1	c į	C1	C 1	~	C1	c į	c a	C1	C1	c i	C1	c 1	C4	c 1	C1	C1	7	7	C.
349	327	461	5	677	324	416	1680	250	260	277	1548	839	915	272	314	335	365	3672	3704	271	728	284	1299	837	1620	277	1712	279	915	2318
17.4	17.3	17.1	16.8	15.7	15.6	15.4	15.0	14.8	4	14.8		٠		14.0		13.9		\sim		ς.	13.0			ц.	12.5	12.4	12.3		12.2	
164	162.5	161	S	147.5	771	***	141	ο,	139.5	139.5	134	132	132		Ċ	130.5	129	124	124	123	122	120	119	118	17.	116.5	15.	115	115	115
15	16	17	18	19	000	21	C1 C1	23	24	25	35	27	28	23	30	31	32	33	34	35	36	37	38	39		41	4.	43	44	4.0

tumor necrosis factor receptor 1 precursor (validated) - human

N,Alternate names: P55 tumor necrosis factor receptor; TNF receptor type 1

MyContains: tumor necrosis factor alpha inhibitor, tumor necrosis factor binding pratein

C.Species: Homo sapiens (man)
C.Species: Journal 2015 #text change OF Inc. 2007
C.Date: 30-Jun-1992 #sequence_revision 10 Jun-1992 #text change OF Inc. 2007
C.Accession. A38299, A34999, A34990, A34900, A34900, A34990, A349

A; Accession: A38208

A; Molecule type: DNA

A,Residues: 1-455 <FUC>
A,Residues: 1-455 <FUC>
A,Cross-references: GB:M75864; GB:M75865; GB:M75865; NID:q339748; FIDN:AAA-1201.1; FID:q4
B,Cross-references: GB:M75864; GB:M75865; GB:M75865; M.; Thiorbi; H., Lessland
Cell 61, 351-359, 1990
A,Fible: Molecular cloning and expression of the human 55 kd tumor necrosus factor recept
A,Reference number: A34899; MUID:30235284, PMID:2158862
A,Accession: A34899

A; Molecule type: mRNA A; Residues: 1-455 < LOE>

A, Cross-references: GB:M58286; GB:M33480; NID:g339753; PIDN:AAA36754:1, PID:q439744

A)Experimental source: placenta
A,Note. part of this sequence, including the amino end of the mature protein, confirmed by Schall, T.J.; Lewis, M.; Koller, K.J.; Lee, A.; Pice, G.C.; Wong, G.H.W.; Gatameda, T.S.Call G1, 361-370, 1990
A,Title: Molecular cloning and expression of a receptor for human timen measure factor.
A,Reference number: A34900; MUID:90235285; PMID:2158863

A; Accession: A34900

A, Molecule type: mRNA A, Residues. 1-455 <SCH>

A,Cross-references: GB.M33294, NID 9339744, PIDN AAA03210.1; PID-04399745
P.Himmler, A.; Maurer-Rogy, I.; Kroenke, M.; Scheurich, P.; Pfizrenmaier, K.; Lantz, M., Gand Cell Biol. 9, 705-715, 1990
A,Title: Molecular cloning and expression of human and rat tumor mecrosis factor receptor A,Feference number: A36555, MGID-91090841, PMID-1702293

dit

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A; Molecule type: protein
A; Residues: 41-45 < ENG>
A; Residues: 41-45 < ENG>
A; Residues: 41-45 < ENG>
A; Residues: 1945 < ENG>
A; Richerinetral source: normal urine
B; Rajihara, J; Asada, A; Kirihara, S; Kato, K.
Biosci. Bicchem. 58, 2266-2268, 1994
Biosci. Bicchem. 58, 2266-2268, 1994
A; Title: Annino acid sequence of natural tumor necrosis factor alpha inhibitor purified
A; Reference number. JC2404
A; Reference number. JC2404, MUID:95128933, PMID:7765720
A; Accession: JC2404
A; Molecule type: protein
A; Residues: 41-53, 'X', 55-144, 'X', 146-150, 'X', 152-186, 'X', 188-201 < KAJ>
                                                                                                                                                                                                                                                                                                                                                                                                                     R;Engelmann, H.; Novick, D.; Wallach, D.
J. Biol. Chem. 265, 1831-1836, 1990
A;Title: Two tumor necrosis factor-binding proteins purified from human urine.
A;Peference number: A35010, MUID.90110215; FMID.2153136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Molecule type: protein
A;Residues: 41-43,'X',45-53,'V',55-57,'XK',60 <OLS>
A;Experimental source: renal failure patient urine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Experimental source: cancer patient serum
R;Olsson, I:; Lantz, M.; Nilsson, E:; Peetre, C:; Thysell, H:; Grubb, A.; Adolf, G.
Eur. J. Haematol. 42, 270-275, 1989
A;Title: Isolation and characterization of a tumor necrosis factor binding protein from A;Reference number: A60594; MUID:89171156; FMID:2924890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Molecule type: protein
A;Residues: 41-43, X, 45-53, X, 55-57 <SEC>
R;Gatanaga, T; Hwang, C., Kohr, W; Gappuccini, F; Lucci III, J.A.; Jeffes, B.W.B.; Le
Proc. Natl. Acad. Sci. U.S.A. 87, 8781-8784, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Seckinger, P.; Vey, E.; Turcatti, G.; Wingfield, P.; Dayer, J.M. Eur. J. Immunol. 20, 1167-1174, 1990
A;Title: Tumor necrosis factor inhibitor: purification, NH-2-terminal amino acid A,Reference number. A60231, MJID.96292116, FMID:2113477
A;Accession: A60231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Title: Cloning and partial characterization of the promoter for the human A;Reference number: JT0758, MUID.94085779, FMID.8262379
A;Accession: JT0758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross references EMPL-X55313; NID:g37223; PIDN:CAA39921 1; PID:g37224
A;Note: parts of soluble TNF binding protein 1, including its amino and carboxyl ends,
P;Kemper, O; Wallach, D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Molecule type: mRNA
A;Residues: 1-455 <GRA>
A;Cross-references: GB:M37764
A;Cross-references: GB:M37764
A;Note: the authors translated the codon TGG for residue 371 as Thr, AAG for residue 372
A;Note: the authors translated the codon TGG for residue 371 as Thr, AAG for residue 372
A;Note: the authors translated the codon TGG for residue 371 as Thr, AAG for residue 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Molecule type: protein
A;Positios: 30 38;41:53,72,55:79,72X7,82:94,7MF7;7XX7,100-104;107-128;162-167,7X7,169-
A;Positios: 30 38;41:53,72,55:70,72X7,82:94,7MF7;7XX7,100-104;107-128;162-167,7X7,169-
A;Note: the purified protein, called tumor necrosis factor binding protein, is a soluble protein, P.W.; Barrett, K.; Chantry, D.; Turner, M.; Feldmann, M.
Prot. Natl. Acad. Stim. U.S.A. 87, 7389-7384, 1990
A;Title: Cloning of human tumor necrosis factor (TNF) receptor cDNA and expression of rA;Reference number: A38281, MUID:91017509, FMID:2170974
A;Reference number: A38281, MUID:91017509, FMID:2170974
A;Accession. A38281
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A; Residues: 1-13 < KEN
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A;Accessilr. 312057
A;Molecule type: mRNA
A;Residues: 1-455 NO
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A;Molecule type: mRNA
A;Residues: 1-455 <HIM>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Accession: A38258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Reference number: A38258, MUID:91062364, FMID:2174164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Title: Purification and characterization of an inhibitor (soluble tumor necrosis fact
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gene 134, 209-216,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1-455 \NOF>
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tumor necrosis factor receptor p55 precursor - pig C;Species: Sus scrofa domestica (domestic pig) C;Date: 29-Nov-1955 #sequence_revision 08-Fcb-1996 #text_change C;Accession: JC4302; PC4093
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A.Map position: 12p13.2-12p13.2

A.Introns: 13/3, 65/1, 108/1, 158/1, 184/2, 209/1; 247/1, 256/3; 353/1

A.Introns: 13/3, 65/1, 108/1, 158/1, 184/2, 209/1; 247/1, 256/3; 353/1

C.Superfamily: tumor necrosis factor receptor type 1; NGF receptor repeat homology C.Keywords: duplication; glycoprotein; receptor; transmembrane protein f.1-21/Domain: signal sequence #status predicted <SIG>
F.1-21/Domain: signal sequence #status predicted <SIG>
F.22-455/Product: tumor necrosis factor receptor 1 #status predicted <MAT>
F.30-211/Domain: extracellular #status predicted <EXT>
F.41-201/Product: TNF binding protein 1 (tumor necrosis factor alpha inhibitor) #status F.41-201/Product: TNF binding protein 1 (tumor necrosis factor alpha inhibitor)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-882-735-1 (1-483) x GQHUT1 (1-455)
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201
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Asn
                                                           AAT 483
                                                                                                                       SerCysSerAsnCysLysLysSerLeuGluCysThrLysLeuCysLeuProGlnIleGlu
                                                                                                                                                                                   TCCTGTAGTAACTGTAAGAAAAGCCTGGAGTGCACGAAGTTGTGCCTACCCCAGATTGAG
                                                                                                                                                                                                                                               LysGlnAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysVal
                                                                                                                                                                                                                                                                                                              ANACAGAACACCGTGTGCACCTGCCATGCAGGTTTCTTTCTAAGAGAAAACGAGTGTGTC
                                                                                                                                                                                                                                                                                                                                                                              PheGlnCysPheAsnCysSerLeuCysLeuAsnGlyThrValHisLeuSerCysGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                      TTCCAGTGCTTCAATTGCAGCCTCTGCCTCAATGGGACCGTGCACCTCTCCTGCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  {\tt ArgAspThrValCysGlyCysArgLysAsnGlnTyrArgHisTyrTrpSerGluAsnLeu}
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Indels:
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Conservative:
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Rysuter, B., Pauli, U.
Gene 163, 263-266, 1995
A;Title: Cloning of the cDNA enceding the porcine p55 tumer necrosis factor receptor
A;Reference number: JC4302, MUID:96011645; PMID:7590278
                                                                                                                                                                                                                                                                                                                                                           C.Superfamily: tumor necrosis factor receptor type 1; NGF receptor repeat homology
                                                                                                                                                                                                                                                                                                                                                                                C;Rrywords: glycoprotein; kidney; receptor; transmembrane protein; tumor F;i 2-7; howain. signal sequence #status predicted <515-
F:10-461/Product: tumor necrosis factor receptor p55 #status predicted <MAT>F;44-194/Domain: extracellular cysteine rich #status predicted <EXT>
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CySpecies: Mus musculus (house mouse)
CyDate: No-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 01-Dec-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 CRRGAMACONTHINITICAGGETSCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141 PheGlnCysLeuAsnCysSerLeuCysProAsnGlyThrValGlnLeuProCysLeuGlu 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  F.211 231/Domain: transmembrane #status predicted <TMM>
F.361-447/Domain: signal transduction #status predicted <SIT>
F.54,145,151/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81 CysArgGluCysAspAsnGlyThrPheThrAlaSerGluAsnHisLeuThrGlnCysLeu 100
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                                                                                                                                                                            A;Cross-references: GB:U19994; NID:g1141752; PIDN:AAC48499.1; PID:g1141753
A;Accession: PC4093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 LysCysHisLysGlyThrTyrLeuHisAsnAspCysLeuGlyProGlyLeuAspThrAsp 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41 GluSerLeuCysProGlnGlyLysTyrSerHisProGlnAsnArgSerlleCysCysThr
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     F;44.82/Domain: NGF receptor repeat homology <NGI>+ F;84 125/Domain: NGF receptor repeat homology <NGF>
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Matches:
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                                                                                                                                                                                                                                                                              A; Experimental source: kidney cell line 15
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85.16$
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                                                                                                                                                                                                                              A;Molecule type: protein
A;Residues: 1-7 <SU2>
                                                                                                                               A;Molecule type: mRNA
A;Residues: 1-461 <SUT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rest Local Similarity.
Ouery Match:
                                                                                                       Accession: JC4302
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A,Molecule type: mRNA
A,Residues: 1-454 cGO2>
A,Cross-references: GB.M60468, NID.g199825, PIDN:AAA19751.1; PID:q104826
B,Cross-references: GB.M60468, NID.g199825, A.F., Kissonerghis, A.M., Gray P.W.; Foldman Bur. J. Immunol. 21, 1649-1656, 1991
Bur. J. Immunol. 21, 1649-1656, 1991
A,Filtle: Glohing, expression and cross-linking analysis of the murling pts tumor mecrosus A,Reference number. S16677, MUID.91285014; PMID:1647956
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AyReference number: IS4832, MJIP.94248292, PMID:8188324
AyAccession: IS4532
C.Accession. A38634, B40254; S16677, S19621; 154532; 157826
R.Lewis, M.; Tartaglia, D.A.; Lee, A.; Bennett, G.L.; Rice, G.C.; Word, G.H.W.; Chen, E.)
Proc Natl Acad Sci. U.S.A. 88, 2830–2834, 1991
A.Jitle: Cloning and expression of CDNAs for two distinct murine tumon incressis factor in
A.Reference number: A38634; MUID:91187885; PMID:1849278
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C;Superfamily: tumor necrosis factor receptor type 1, MGF receptor repeat homolosy
C;Keywords: cytokine receptor; duplication; glycoprotein; receptor; transmemtrane preferr
F;1-29/Domain: signal sequence #status predicted <SIG>
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A,Cross-references: GB.M76656, NID.9202100, PIDN:AAA40465.1; PID:q202102
C,Comment: This protein is one of two distantly related receptors for both TNF alpha (cac
                                                                                                                                                                                                                                                                                         A,Residues: 1-454 cLEW>
A,Cross-references. GB.M60468, MID:g199825; FIDM:AAA39751.1; PID:q199826
A,Cross-references. GB.M60468, MID:g199825; FIDM:AAA39751.1; PID:q199826
R)Goodwin, R.G.; Anderson, D.; derryy, R.; Davis, T.; Brannan, C.I.; Copeland, N.G., Alenki Mol. Cell. Biol. 11, 3020-3026, 1991
A,Title: Molecular cloning and expression of the type I and type 2 man are receptors for 1 A,Reference number. A40254; MuID:91246168; PMID:145445
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F,127-167/Domain- NGF receptor repeat homology +NG3>
F,168-204/Domain. NGF receptor repeat homology <NG3>
F,158-204/Domain. HGF receptor repeat homology <NG4>
F,213-235/Domain. transmembrane fistatus predicted <NGN>
F,236-454/Domain. intracellular fistatus predicted <NT>
F,54,151,202/Binding site: carbohydrate (Asn) (covalent) fistatus predicted
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Immunogenetics 34, 338-340, 1991
Ajfitle: Molecular Cloning and expression of the mouse Infireceptor type b
A,Reference number: $19021; MUID:92039815; PMID:1657766
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R;Rothe, J.G.; Bluethmann, H.; Gentz, R.; Lesslauer, W.; Steinmetz, M.
Mol. Imminol. 30, 165-176, 1993
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A; Residues: 1-454 <BAR>
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A; Residues: 1-454 <ROT>
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A,Cross-references. OB:M63122; NID:g207361; FIDN:AAAA2256.1; PID:g207362
C;Comment: This protein is one of two known receptors for both TNF-alpha (C;Superfamily: tumor necrosis factor receptor type 1; NGF receptor repeat C;Keywords: Juplication; glycoprotein; receptor; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Title: Molecular cloning and expression of human and rat tumor necrosis factor recepton
A;Reference number: A36555; MUID:91090841, FMID:1702293
A;Accession: B36555
                      Percent Similarity:
Best Local Similarity:
                                                                                                                                                                F;212-234/Domain: transmembrane #status predicted <MEM>
F;235-461/Domain: intracellular #status predicted <INT>
F;54,151,201/Binding site: carbohydrate (Asn) (covalent) #status predicted
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F;30 211/Domain: extracellular #status predicted <EXT>
F;30 201/Freduct: tumor necrosis factor binding protein #status predicted <TBP>
F;44-82/Domain: NGF receptor repeat homology <NG1>
F;84-126/Domain: NGF receptor repeat homology <NG2>
F;84-126/Domain: NGF receptor repeat homology <NG3>
F;1127-167/Domain: NGF receptor repeat homology <NG3>
F;1168-204/Domain: NGF receptor repeat homology <NG4>
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A;Residues: 1-461 <HIM>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tumor necrosis factor receptor 1 precursor - rat
N;Contains: tumor necrosis factor binding protein 1 (TNF blocking factor)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 30-Jun:1992 #sequence_revision 07-Oct-1994 #text_change 22-Jun-1999
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71.09%
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A; Residues: 1-435 < RE
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                         22 AAATATATCCACCCTCAAAATAATTCGATTTGCTGTACCAAGTGCCACAAAGGAACCTAC 81
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R;Baens, M.; Chaffanet, M.; Cassiman, J.J.; Van den Berghe, H.; Marynen, P. Genomics 16, 214-218, 1993
A;Title: Construction and evaluation of a hncDNA library of human 12p trans
                                                                                                                                                                                                                                                                                                                                                                                                    A;Map position: 12p13.3-12p13.1
C;Superfamily: tumor necrosis factor receptor type 1; NGF receptor repeat homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Reference number: I54182; MUID:93252381; PMID:8486360 A;Accession: I54182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Species: Homo sapiens (man)
C;Date: 24-May-1996 #sequence_revision 24-May-1996 #text_change 17-Mar-2000
C;Accession: I54182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tumor necrosis factor receptor 2-related protein - human
US-09-882-735-1 (1-483) x I54182 (1-435)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: GDB:1230195; OMIM:600979
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C;Comment: This protein is thought to form a high-affinity receptor when it associations C;Comment: This receptor undergoes both N- and O linked glycosylation. A,Genee GDB: NORF A,Genee GDB: 120234; CMIM:162010 A,Map position: 17921 17922 C,Superfemily: nerve growth factor receptor, NGF receptor repeat hemology C;Reywords: duplication; glycopictern; heterodimer; monomer; phosphostorin; proceptor F129-427/Product: nerve growth factor receptor dexty F129-50/Domain: spinal sequence fattus predicted <ext> F129-427/Product: nerve growth factor receptor dexty F129-427/Promain: NGF receptor repeat homology <ng3> F1309-447/Domain: NGF receptor repeat homology <ng3> F1409-189/Domain: NGF receptor repeat homology <ng3> F1409-189/Domain: NGF receptor repeat homology <ng3> F1409-189/Domain: https://domain: https://domain.erink.com/lineracellular fattaus predicted <nnt> F207-180/Domain: intraacellular fattaus benefic to to</nnt></nnt></nnt></nnt></nnt></nnt></nnt></nnt></ng3></ng3></ng3></ng3></ext>	Oy 10 TGFCCCAAGGAAATTATCACCTCAAAATTATCATTTATATATA
Dh 49 GluTyrTytGluProGluHisArgIleCysCysSetArgCysProProGlyThrTyr 67 Oy 82 TTGTACAATGACTGCCGGGGCAGGATACGGACTGCAGGAGTGTAGANG 141 Sise the statement of the st	RESULT 6 COMMITTO ACCORDED TO TRECPROTE FREQUENCY, low affinity [validated] - human Nationate names NGF receptor Ciphter in Mar-1988 Receptor Ciphter in March

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Aydross-reference. 30 MF3443, NIT g193077, PIER AAA3750 1, PID g199828 k, Jordwin, F.C. Anderson, D. Jordy, B. Davis, T.; Brannan, C.I.; Copeland, N.G.; Jonk Mc1. Cell. Bool. 11, 3020-3026, 1991 AyTitle: Mc1eculur Cloning and expression if the type 1 and type 2 murine receptors for AyReference number: A40854, MUID:91246168; PMID:1645445
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A; Residues: 1 22 KIS>
A; Cr: ss:reference EM
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RyKissonerghis, M., Felliwes, R., Felldwan, M., Chernajovsky, Y.
submitted to the EMBL Data Library, May 1995
Approximate the murine p75-TNF receptor
Approximate transfer expense.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Proc. Natl. Acad. Sci. U.S.A. 86, 2830-2834, 1991
A;Title: Cloning and expression of oDNAs for two distinct murine tumor necrosis factor
A;Reference number: A38634; MUID:91187885; PMID:1849278
A;Accession: 838634
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Pred. No.
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A;Status: preliminary
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A; Residues: 1-474 < GOO>
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Best Loui vimilarity
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AspThrThrSerSerThrAspValCysArgProHisArgIleCysSerIleLeuAlaIle 192
                                                            AACGAGTGTGTCTGTAGTAACTGTAAGAAAAGCCTGGAGTGCACGAAGTTGTGCCTA 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Frodi)GluTyrValLysHisFhedys---AsnLysThrSerAspThrValCysAlaAsp 78
                                                                                                                ArgAlaProAsnGlyAsnValLeuCysLysAlaCysAlaProGlyThrPhe-----Ser 172
                                                                                                                                                                   TOCCAGGAGAAACAGAACACGGTGTGC---ACCTGCCATGCAGGTTTCTTTCTAAGAGAA 408
                                                                                                                                                                                                                          SerCypArgClnCypMetArgLeuSerLysCysClyFrcGlyFheGlyValAlaSerSer 154
                                                                                                                                                                                                                                                                                                                                                                                                                                               SerSerCysThrThrAsp-----GlnValGluIleArgAlaCysThrLysGlnGlnAsn 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CysGluAlaSerMerTyrThrGlnValTrpAsnGlnPheArgThrCysLeuSerCysSer 98
                                                                                                                                                                                                                                                                                 AACCTTTTCCAGTGCTTCAATTGCAGCCTCTGCCTCAATGGG---ACCGTGCACCTCTCC 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOCAMA I SUUGAAAA SAMATA SITUA SITUSAA TOTOTTOTTOCACA GTGGA CCGGGA C 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rgreacaeceerrearearearroagaaaaacaecreagacacrecercagcreac--- 186
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A;Title: Myxoma virus expresses a secreted protein with homology to the tumor necrosis
A;Nefeterce numrer. A40:66, MIII:91335768; PMID:1651597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Accession: R;Upton, C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         F,106:147/Domain. NGF receptor repeat homology <NG3>
F,66,181,205,238/Binding site. carbohydrate (Asn) (covalent)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: GB:M95181; GB:M37976; NID:g332309; PIDN AAA46837.1, FID.g332310 ()SUperfamily: myxcma virus T2 protein, NGF receptor repeat homology C;Reywords: glycoprotein C;Reywords: glycoprotein C;Reywords: NGF receptor repeat homology <NG2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: DNA
A; Residues: 1-326 < UPT>
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C;Sate. 3: Dec:1992 #seduence_revision 3: Dec:1992 #text_change 18-Jun-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GQYZML
T2 protein - myxoma virus (strain Lausanne)
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                               454 ACGAAGTTGTGCCTACCC 471
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                                                                                                                                                                                                                                                                                                                                                                                                                  131 AlaGlyTyrGlyValSerGlyHisThrArgThrGlyAspValLeuCysThrLysCysPro 150
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     157 GAAAACCACCTCAGACACTGCCTCAGCTGC---TCCAAATGCCGAAAGGAAARGGGTCAG 213
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           54 ---GlyProGlySerAspThrValCysSerProCysLysAsnGluThrPheThrAlaSer 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   34 GluLysAspGlyLeuCysCysThrSerCysProProGlySerTyrAlaSerArgLeuCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          37 CAMAMTAATTICGATTTIGCTGTACCAAGTGCCACAAGGAACCTACTTGTACAATGACTGT
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                                                                                                                                                                                          IleSerValGluPheAsnLeuTyrProValAsnAspThrSerCysThrThrThrAlaGly
                                                                                                                                                                                                                                                 ---ACCGTGCACCTCTCCTGCCAGGAGAAACAGAACACCGTGTGCACCTGCCATGCAGGT
                                                                                                                                                                                                                                                                                                        ArgTyrThrTyrSerAspAlaValSerSerThrGluThrCysThrSerSerPheAsnTyr 170
                                                                                                                                                                                                                                                                                                                                                              CGGCATTATTGGAGTGAAAACCTTTTCCAGTGCTTCAATTGCAGCCTCTGCCTCAATGGG 336
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Indels:
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46.30$
30.86$
18.76$
                      A;Accession: A26431
A;Molecule type: mRNA
A;Residues: 1-425 <RAD>
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A; Residues: 1-20 <MET>
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                                                                                                                                                                                                             A,Title: Tumorigenic poxviruses: genemic organization and DNA sequence of the telomeric A,Reference number: A43692, MUID:87321103, FMID:2820128
A,Accession: B43692
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B,Radeke, M.J.; Misko, T.P.; Hsu, C.; Herzenberg, L.A.; Shorter, E.M.
Nature 325, 593-597, 1987
A;Title: Gene transfer and molecular cloning of the rat nerve growth factor receptor.
                                                                                                     C.Species: rabbit fibroma virus, Shope fibroma virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NiAlternate names: NGF receptor precursor, low affinity - rat
NiAlternate names: NGF receptor
()Species: Rattus norvegicus (Norway rat)
()Spiesies: Rattus norvegicus (Norway rat)
()Spiesies: No Sep 1999 #sequence_revision 10-Sep-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             - GluSerGlnProCysAspArgThrHisAspArgValCysAsnCysSerThrGlyAsn 110
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             325
45
15
62
30
                                                                                                                                                                                                                                                                                                                                                                                     F;64 105/Domain: NGF receptor repeat homology <NG2> F;106 147/Domain: NGF receptor repeat homology <NG3>
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Mismatches.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----AGCCTGGAGTGCACGAAGTTGTGC 465
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Matches.
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                                                                                                                                              C;Accession: B43692
R;Upton, C.; DeLange, A.M.; McFadden, G
Virology 160, 20-30, 1987
                                                                                      T2 protein · rabbit fibroma virus
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178.00
39.47$
207 Thrasp --- Cysasppro 211
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A;Cross-references: GB:M17433
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Ajintrons: 20/3
CjSuperfamily: nerve growth factor receptor; NGF receptor repeat homeolony
CjSuperfamily: nerve growth factor receptor; menomer; phosphoprotein; receptor to phosphoprotein; phosphoprotein; phosphoprotein; p. 11-29/Domain: signal sequence #status predicted <815.
F.30-425/Product: nerve growth factor receptor #status predicted <MAT.
F.30-51/Domain: with receptor repeat homeology <NG1>
F.31-66/Domain: NGF receptor repeat homeology <NG2>
F.110-148/Domain: NGF receptor repeat homeology <NG3>
F.110-148/Domain: NGF receptor repeat homeology <NG3>
F.150-190/Domain: NGF receptor repeat homeology <NG3>
F.150-190/Domain: NGF receptor repeat homeology <NG4>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A_Cross.references. GB.X61269
C_Comment: This receptor is found on sensory and sympathetic neurous, on neuroblantoms or C_Comment: The cysteine-rich region of the extracellular domain may form part or all of t C_Comment: This protein is thought to form a high-affinity receptor when it associates when
                                                                                                                                                                                                                                                                                                       A.Title: Regulatory elements and transcriptional regulation by test esterione and retino: A.Reference number: PH1229; MUID:93077038; PMID:1446821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          304 CAGTGCTTCAATTGCAGCCTCTGCAATGGGACC---GTGCACCTCTCTCTGCAGAA3 360
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   244 GACACCGTGTGTGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTTTTC 60+
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   68 CysLeuAspAsnValThrPheSerAspValValSerAlaThrGluProCysLysProCys R7
                                                                                                                                                                       AjCross-references: GB:X05137; NID:956755; PIDN:CAA29781.1; PIU:946736
R;Metsis, M.; Timmusk, T.; Allikmets, R.; Saarma, M.; Persson, H.
Gene 121, 247-254, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fj198-249/Region: serine/threonine-rich
F,252-273/Domain: transmembrane #status predicted <MEM>
P,274-425/Domain: intracellular #status predicted <INT>
F,61/Binding site: carbohydrate (Asn) (covalent) #status predicted
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A;Peference number: A26431; MHD:87115859; PMID:4027580
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Mismatches:
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C;Species:
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C/Superfundly: Term metrosis factor receptor type 2, NGF receptor repeat homology
F/151-188/Commin. NGF receptor repeat homology kNGF.
                                                                                                                                           RESULT 12
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A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molegule type: mRNA
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C/Dato: 00-101-1996 #sequence_tevision 02-01-1996 #text_change 23-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
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                                                                                                                                                                                                                                   178
                                                                                                                                                                                                                                                                                                                                                                                                          158 AspTh:Th:SerSerTh:AspValCysArgFroHisArgIleCysSerIleLeuAlalle 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .....
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     140 ArgAlaProAsnGlyAsnValLeuCysLysAlaCysAlaProGlyThrPhe-----Ser 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24 NOCCESTSESSCIEGCAGGAWGAWCCAGIAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAASSAAASSTASTTETTASTAATGASTSTSSTASGGCCCGGGGGCAGGATACGGACTGCAGGGAG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MACCHAGIGICICICISTAGTAACIGTAAGAAAAGCCIGGAGIGCACGAAGITGTGCCCIA 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SerCysArgGinCysMetArgLeuSerLysCysGlyProGlyPheGlyValAlaSerSer 139
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ESTOTOTAAGGAAAATATATTOTATOTTTAAAATAATTTGGATTTGCTGTATCAAGTGCCAC 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOTAAA TOTTOAAA JOAAA TOBOTOA JOTOJA JATOTOTTOTTOCACAGTGGACGGGGAC 246
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associated surface molecule CD40,

long splice form - mouse

musculus

(house mouse)

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A;Residues: 1-305 <TOR>
A;Cross-references: GB:M83312; NID:g1553058
A;Cross-references: GB:M83312; NID:g1553058
A;Note: sequence extracted from NCBI backbone (NCBIN:75206, NCBIP:75207)
A;Note: this translation is not annotated in GenBark entry MUSCD40A, release
A;Note: this translation is not annotated in GenBark entry MUSCD40A, release
B;Crimaldi, J.C., Toutes, R., Kozak, C.A.; Chang, P., Clark, E.A., Haward,
J. Immunol. 149, 3921-3926, 1992
A;Title. Genomic structure and chromosomal mapping of the murine CD40 gene.
A;Reference number: A46515; MUID:93094586; PMID:1281194
A;Accession: A46515
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A.Title. Differential increase of an alternatively polyadenylated mRNA species
A;Reference number: A46476; MUID:92105763; PMID:1370315
A;Accession: A46476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-882-735-1 (1-483) \times A46476 (1-305)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A,Closs-references. GB.M83312, NID-g1553058; FIDM:AAB08705.1; PID-g1553059, GB.M34120; A,Experimental source: BALB/c, liver A,Experimental source: BALB/c, liver A,Note. sequence extracted from NCBI backbone (NCBIF:120357)
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A,Residues. 1-287,'LV' <GRI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R; Torres, R.M.; Clark, J. Immunol. 148, 620-6
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C;Accession: A46476; A46515
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160 LysCysTyrProTrpThrSerCysGluAspLysAsnLeuGlu 173
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                                                                                                                             140 AspThrValCysHisProCysProValGlyPhePheSerAsnGlnSerSerLeuPheGlu
                                                                                                                                                                                                 367 AACACCGTGTGC---ACCTGCCATGCAGGTTTCTTTCTAAGAGAAAAC-----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         82 HisCysGluProAsnGlnGlyLeuArgValLysLysGluGlyThrAlaGluSerAspThr 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 43 ProGlySerArgLeuThrSerHisCysThrAlaLeu---GluLysThrGlnCysHisPro
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О
                                                                   GAGTGTGTCTCCTGTAGTAACTGTAAG----AAAAGCCTGGAG 450
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                                                                                                                                                                                                                                                           AlaGlnHisThrProCysTleProGlyPheGlyValMetGluMetAlaThrGluThrThr
                                                                                                                                                                                                                                                                                                                           TTCAATTGCAGCCTCTGCCTCAATGGG---ACCGTGCACCTCTCCTGCCAGGAGAAACAG
                                                                                                                                                                                                                                                                                                                                                                                            ValCysThrCysLysGluGlyGln-----HisCysThrSerLysAspCysGluAlaCys
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CysAspSerGlyGluPheSerAlaGlnTrpAsnArgGluIleArgCysHisGlnHisArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGTGAGAGCGGCTCCTTCACCGCTTCAGAAAACCACCTCAGACACTGCCTCAGCTGCTCC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGGCAGGATACGGACTGCAGGGAG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CysSerAspLysGlnTyrLeuHis-----AspGlyGlnCysCysAspLeuCysGln 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTCCCCAAGGAAAATATATCCACCCTCAAAATAATTCGATTTGCTGTACCAAGTGCCAC 69
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44.81%
29.87%
17.80%
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Conservative:
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115 CysLeuLeuLysGlySerSerGlyCysLysAlaCysValSerGlnThr
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4.2
1.7
5.4
3.8
8
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Mismatches:
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                                                                                                                                                                                                          Length:
                                                                                                                                                                                                                                                                                          Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   105 ArglleCysGluCysSerProGlyTyrTyr
                                                                                                                                                                                                                                                                                                                  Gaps:
                                                                                                                                                                                                                                                                                                                                                    US-09-882-735-1 (1-483) x T28623 (1-348)
                                                                                                                                                                                                      3.5e-06
164.00
39 07%
27.81%
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                                                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
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                                                                           R;Shchelkunov, S.N.; Totmenin, A.V.; Gutorov, V.V.; Safronov, P.F.; Massung, P.F.; Lopar submitted to GenBank, March 1998
A;Description: Analysis of the complete coding sequence of DNA of alastrim variola minor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R.Massung, P.F., Esposito, J.J. tiu, L.I.; Qi, J.; Urterback, T.P.; Knight, J.C., Aubid
                 C,Species: variola minor virus
C,Date: 24-Nov-1999 #sequence_revision 24-Nov-1999 #text_change 20-Jun-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C)Species: variola major virus
C:Date: 22 Oct-1999 #sequence_revision 22-Oct 1999 #text_change 21-Jul-2009
                                                                                                                                                                                                                       A;Residues: 1-149 <SHC>
A;Cross-references: GB:Y16780; MID:g5830555; PIDN-CAR54798 1; PID:g5830759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           70 AAAGGAAMMITATTGTAGAATGAMTGTGGAGGAMAGGGAGATAGGGACTGGAGGAG 129
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           247 ACCCTCTCTCCCTCCCACCAAGAACCCAGTACCGGCATTATTCGAGTGAAACCTTTTCCAG 306
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              49 ProGlyThrTyrAlaSerArgLeuCysAspSerLys---ThrAsnThrGlnCysThrPro 67
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    32 (YslysAspThrGluTyr-----LysArgHisAsnLeuCysCysLeuSerCysPro 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   116 CysLeuLysGlySerSerGlyCysLysAlaCysValSerGlnThr------
                                                                                                                                                                                                                                                                                                                            C; Superfamily: myxoma virus T2 protein; NGF receptor repeat homology
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43
9
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  variola minor virus (strain Garcia-1966)
                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative:
Mismatches:
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                                                                                                                                                                                                                                                                  A; Experimental source: strain Garcia-1966
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                                                                                                                                                                                                                                                                                                                                                                                           2.14e-06
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                                                                                                                                            A;Reference number: A72150
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Best Logal Similarity:
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                                                          C;Accession: D72175
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G2R protein -
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                                                                                                                                                                                                                                                                                                           A.Gene: G2R
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A,Cross-references: GB.X69198; NID-g456758; PIFN-CAA49137.1; PID-9457087
A,Experimental source: strain India-1967, 88p. major, isolate India
K,Exbykhalov, A.A.; Blinov, V.M.; Gytorov, V.V.; Fordhyakov, S.G.; Thinhikev, V.E., Freir submitted to the EMEL Data Library, April 1992
A,Description: Nucleotide sequence analysis of the region of Viriola virus Xhot F. H. P., A,Peference marker: S46868
A;Title: Potential virulence determinants in terminal regions of variety smallfex variety A;Reference number: 220488; MUID:94088747; PMID:8264798
A;Accession: T2868; MUID:94088479; PMID:8264798
A;Status: preliminary; translated from GB/EMBL/DDRJ
A;Molecule type: DNA
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N;Alternate names: B28R protein (COP)
C;Species: variola virus
C;Species: variola virus
C;Dacession: D36858, S46888; S32385, S35987
R;Blinov, V.M.
R;Blinov, V.M.
A;Reference number: A36859
A;Accession: D36858
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A;Residues: 1-348 <MAS>
A;Cross-references: EMBL1122579; NID-19623595; PIDN:AAA60943-1; PID-1447910; A;Ryperimental source: Strain Bangladesh 1975
C;Superfamily: myxoma virus T2 protein, NGF receptor repeat bomesleay
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              70 AAAGGAACCTACTIGTACAATGACTGTCAAGCCGGGGGGGGGATACGGAGUTGCAAGTGC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31 CysbysAspThrGlufyr-----LysArgHisAsnLeuCysCysLeuSerCysPro 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 48 ProGlyThrTyrAlaSerArgLeuCysAspSerLys. -ThrAsnThrGlnCysThrFto 66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  87 GlyArgCysAsnSer----AsnGlnValGluThrArgSerCysAsnThrThrHusksn
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A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-349 *KDL>
A;Cross: reference: EMBL-XETTLT, NIE 351F428, FIDE CAA47540 1; PID:9516449
A;Cross: reference: Strain India-1967, isolate Ind3
R;Shchelkunov, S.N.; Blinov, V.M.; Sandakhchlev, L.S.
FEBS Lett. 319, 80-83, 1993
A;Title: Genes of variola and vaccinia viruses necessary to overcome the host protective
A;Reference Hunder. 332385, MUID:93232281; FMID:8354129
A;Accession: S32385
A;Molecule type: DNA
A;Residues: 31-168 <SHC>
A;Cross: references: EMBL:X69198
A;Experimental source: strain India-1967, ssp. major
C;Genetics:
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Best Local Similarity:
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                                                                                                    143 ThrSerValGlyAspValIleCysSerProCys 153
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                          completed: 'anvary 6, 2003, 03.48.50
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39.07%
27.81%
17.43%
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42
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GenCore version 5.1.3
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OM nucleic - protein search, using frame_plus_n2p model

Run on:

January 6, 2003, 02 15.49 , Search time 15 5 Seconds (without alignments) 2584.912 Million cell updates/sec

US-09-882-735-1 941

gnetandegagttgagaat 483 1 gatagtgtgtccccaagg... Perfect score. Sequence:

BLOSUM62 Scoring table:

Xgapop 10.0, Xgapext (Ygapext Ygapop 10.0, Ygapext Pgapop 6.0, Egapext Pelop 6.0, Delext

112892 segs, 41475328 residues Searched:

225784 Total number of hits satisfying chosen parameters

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Command line parameters:

MODELs frame, n2p, node1 - DEV=xlh

MODELs frame, n2p, node1 - DEV=xlh

MODELs frame, n2p, node2 - DEV=xlh

DR: SwirsProt 40 - QFMT=fastan - SHFFIX=rsp - MINNATCH=0.1 - LOOPCL-0 - LOOPEXT=0

- LOTTS-bits of TAFF=1 - END=1 - INATFIX=blosum62 - TRANS=human40.cdi - LIST=45

- UNITS-bits of TAFF=1 - FADET TE - TAFFIX=blosum62 - TRANS=human40.cdi - LIST=45

- DOCALIGN=2 no - ATHP SCOPE-prot - THP MAX.-10.0 - THP MIN-n - ALIGN=15 - MODE=LOCAL

OUTFMT=pto NORM-Ext - HEAPSIZE=50 - MINLEN=0 - MAXLEN=200000000

USEP PROPAGATYS, ACT 1 1 4 Arunat 0.012 0.0 - ATHP MIN-1 - LONGLOG - DEV TIMEOUT=120

WARN TIMEOUT=30 - THRANS=1 - XGAPOP=10 - XGAPEXT=0.5 - FGAPOP=6 - FGAPEXT=7

YGAPOP=10 - YGAPEXT=0.5 - DELOP=6 - DELEXT=7

SwissProt 40:* Database :

Prod. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

STIMMARTES

		d			SUMMARIES	
Result, No.	Score	onery Match	s Duery Match Length DB	DB	QI	Description
	941	100.0	455	-	TRIA HUMAN	P19438 homo sapien
5	716.5	76.1	461		TRIATPIG	P50555 sus scrofa
3	680	72.3	454		TRIA MOUSE	P25118 mus musculu
4	674.5	71.7	471	Н	TR1A_BOVIN	019131 bos taurus
5	699	71 1	461	-	TP1A PAT	P22934 rattus norv
4	200 5	~ ;;	176		TP23 MOUSE	
7	200.5	21.3	417	7	TR12 HUMAN	
80	198.5	21.1	180		TR22 MOUSE	
6	187.5	19.9	435	-	TNR3 HUMAN	
10	182.5	19.4	427	-	TR16 HUMAN	POR138 homo sapien
11	181.5	19.3	417	-	TR16 MOUSE	Q920wl mus musculu
12	181	19.2	474	7	TR1B_MOUSE	P25119 mus musculu
13	179.5	19.1	326	٦	VT2 MYXVL	P29825 myxoma viru
14	178	18.9	325	٦	VT2 SFVKA	P25343 shope fibro
15	176.5	18.8	332	-	TNR6 PIG	077736 sus scrofa
16	176.5	18.8	425	r-4	TF16 FAT	P07174 rattus norv
1.7	167.5	17.8	289	~	TNR5 MOUSE	P27512 mus musculu
18	167.5	17.8	415	-	TNRY_MOUSE	P50284 mus musculu

EMBQ J 9 3269.3278(1990)

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O28203 Fost Laurus	P51867 bos taurus	Opithas campoline as	P34015 variola vir	DITE KODMOO 655EEO	Obbitch homo sapien	P25446 mass mascula	P2043 home sapien	O08727 rattus notv	COS712 mus musculu		P18519 gallus gall	Q92956 home sapien		P30432 drosoph.la	P41272 mus musculu	P25942 home sapien	O14798 h tumor nec	P26842 homo sapien	014763 hemo sapren	Q9nj15 branchiosto	Q04592 mas mascala	P92127 quardia lam	Olopat mus musculu	092824 howe sapres	P47741 mus musculu	P25445 homo sapien
TNRS BOVIN	TNP6 BOVIN	CRMB_CAMPS	CRMB_VARV	CRMB_COWPX	T11B_HUMAN	TNR6_MOUSE	TRIB HUMAN	TIIR RAT	T11B_MOUSE	TNR6 RAT	TR16 CHICK	TR14 HUMAN	T105 HUMAN	FUR2_DROME	TNR7 MOUSE	TNP 5 HIMAN	T10C HIMAN	TNR7 HUMAN	T10B HUMAN	PCKS BRACL	PCKS_MODDE	VS41 GIALA	TF:1 MOUSE	PCK5 HUMAN	TNR4 MOUSE	TNR6_HUMAN
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269	323	349	349	351	401	327	461	401	401	324	416	283	386	1680	250	277	259	260	440	1696	1877	687	655	913	272	335
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167	166.5	166.5	164	164	164	162.5	191	158	154	147	145	142	142	141	139.5	139.5	139	138.5	137	134	134	133	132 5	132	131.5	130.5
19	50	21	22	23	24	25	5.6	27	9	23	30	31	ë.	33	34	35	36	37	38	39	4 0	41	4	43	44	4 .

ALIGNMENTS

RESULT	LT 1.
IKIA	IKTA HUMAN ID TRIA HUMAN STANDARD; PRT; 455 AA.
AC	F19438;
턴	01-FEB-1991 (Rel. 17, Created)
닯	01-FEB-1991 (REI. 17, mast sequence update) 15-JIN-2002 (Pel. 41, Last annotation update)
DE	Tumor necrosis factor receptor superfamily member 1A precursor (p60)
er Er	(TNF-PI) (TNF-PI) (pss) (Chigha) [Contains: Tumor nectosin factor
E	binding protein 1 (TBPI)].
N.S	THERSFIA OR THEPI OR THEAR.
SO	
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3 8	Mammaila; butneria; Filmates; Cataffilli; Homilloae; Homo. NCRI TaxtD=9464.
N.N.	
R P	SECUENCE FROM N. A.
RC	TISSUE=Placenta;
RX	MEDLINE=90235285; PubMed=2158863;
RA	Schall T.J., Lewis M., Koller K.J., Lee A., Rice G.C., Wong G.H.W.,
RA	Getanaga T., Granger G.A., Lentz R., Raab H., Kohr W.J., Goeddel D.V.
RT	"Molecular cloning and expression of a receptor for human tumon
RT	necrosis factor.";
RL	Cell 61:361-370(1990).
RN	[2]
RP	SEQUENCE FROM N.A.
RX	
RA	Loetscher H., Pan YC.E., Lahm HW., Gentz R., Brockhaus M.,
RA	Tabuchi H., Lesslauer W.;
P.T.	"Molecular cloning and expression of the human 55 kd tumor necrosis
RT	factor receptor.";
PL	Cell 61:351-359(1990).
RN	[3]
ч	SEQUIENCE PROM N A , AND SEQUENCE OF 41-53; 110-124 AND 199 201.
КX	PubMed=1698610;
RA	Nophar Y., Kemper O., Brakebusch C., Engelmann H., Zwang R.,
PA	Aderka D., Holtmann H., Wallach D.;
(r.	"Soluble forms of tumor necrosis factor receptors (TNF-Rg), The CUNA
RT	for the type I TNF-R, cloned using amino acid sequence data of its
£-• Ω:	soluble form, encodes both the cell surface and a soluble form of the
RT	receptor.",

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Cell 97:133-144(1999).
                                                                                                                                        autoinflammatory syndromes.";
                                                                                                                                                   Schlimgen R. Kumarajeewa T.R., Cooper S.M., Vella J.P., Mulley J., Quane K.A., Molloy M.D., Rnaki A., Powell R.J. Hitman G.A., O'Shea J., Kastner D.J., "Germline mutations in the extracellular domains of the receptor, TNFR1, define a family of dominantly inherited
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Broger C., Loetscher H., Lesslauer W.;
"Crystal structure of the soluble human 55 kd TNF receptor-human beta complex: implications for TNF receptor activation.";
Cell 73:431-445(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIINE=92050049, PubMed=1315717;
Fuchs P., Strehl S., Dworzak M., Himmler A.,
"Structure of the human TNF receptor 1 (p60)
logalization to chromosome 12p12 ";
Senomics 17:210 224(1992)
                                                                                                                                                                                                                                                                                                                                                                                                 Naismith J.H., Devine T.Q., Khono H., Sp
"Structures of the extracellular domain
                                                                                                                                                                                                                                                                                                                                                                                                                                  X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS) OF MEDLINE.97094982; PubMed=8939750;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=93258809; PubMed=8387891; Banner D.W., D'Arcy A., Janes W., Gentz R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gray P.W., Barrett K., Chantry D., Turner M., Feldman M.; "Cloning of human tumor necrosis factor (TNF) receptor cDNA and expression of recombinant soluble TNF-binding protein.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  factor receptor chain (p60) and its soluble derivative, tumor neurosis factor-binding protein."; DNA Cell Biol. 9:705-715(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Himmler A., Maurer-Fogy I., Kroenke M., Scheurich P., Pfizenmaier Lant? M., Olsson I., Hauptmann R., Stratowa C., Adolf G.R.; "Molecular cloning and expression of human and rat tumor necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Engelmann H., Novick D., Wallach D.;
"Two tumor necrosis factor binding proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (4)
SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N A.
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                                                                                                                                                                                                                                                                                                                                                                    Structure 4:1251-1262(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=Placenta;
            FUNCTION. Receptor for TWFSF2/TNF-alpha and homotrimeric TMFSF9/lymphotoxin-alpha. The adaptor molecule FADD recruits cuspuse 8 to the activated receptor. The resulting death-inducing signaling complex (DISC) performs caspase-8 proteclytic activation which initiates the subsequent cascade of caspases (aspartate-specific cysteine proteases) mediating apoptosis. Contributes to
the induction of noncytocidal TNF effects including anti-viral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CRYSTALLOGRAPHY (2.85 ANGSTROMS) OF 30-211 IN COMPLEX WITH THEB
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                                                                                                                                                                                                                                                                                                                                                                                                                 Khono H., Sprang S.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g proteins purified from human cross-reactivity with cell sur
                                                                                                                                                                                                                                                                                                                                                                                                   of the type I tumor necrosis
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STATE and activation of the acid sphingomyelinase.
SUBUNIT: THE BINDING TO THE EXTRACELULLAR DOMAIN OF THER LEADS
HOMOTRIMERIZATION. ONCE AGGREGATED THE RECEPTORS DEATH DOMAINS
PROVIDE A NOVEL MOLECULAR INTERFACE THAT INTERACTS SPECIFICALLY
WITH THE DEATH DOMAIN OF TRADD. VARIOUS TRADD-INTERACTING
PROTEINS SUCH AS TRAFS, RIP AND POSSIELY FADD, ARE RECRUITED TO
THER COMPLEX BY THEIR ASSOCIATION WITH TRADD. THIS COMPLEX
ACTIVATES AT LEAST TWO DISTINCT SIGNALING CASCADES, APOPTOSIS AN
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NF-KAPPA B SIGNALING.
SUBCELULAR LOCATION: Type I membrane protein and secreted.
SUBCELULAR LOCATION: Type I membrane protein and secreted.
DOMAIN: THE DOMAIN THAT INDUCES A-SMASE IS PROBABLY IDENTICAL
THE DEATH DOMAIN. THE N-SMASE ACTIVATION DOMAIN (NSD) IS BOTH
NECESSARY AND SUFFICIENT FOR ACTIVATION OF N-SMASE. ď

PTM: The soluble form is produced from the membrane form γď

proteolytic processing DISEASE: Defects in TNI myalgia recurrent fever, abdominal pain, localized tender familial hibernian fever (FHF), a disease characterized Defects in TNFRSF1A are a cause of autosomal skin lesions dominant

SIMILARITY: CONTAINS 4 TNFR-CYS REPEATS SIMILARITY: CONTAINS 1 DEATH DOMAIN.

WWW="http://www.ncbi.nlm nih gov/prow/cd/cd120a.htm". DATABASE: NAME=PROW; NOTE=CD guide CD120a entry;

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or send an email to licensewisb-sib.ch).

EMBL; M75866; AAA61201.1; J EMBL; M75864; AAA61201.1; J EMBL; M75865; AAA61201.1; J EMBL; M60275; AAA36756.1; -EMBL; A21522; CAA01558.1; CHAIN Pfam; PF00020; TNFR C6; 4.
Pfam; PF00531; death; 1.
ProDom; PD000777. PIR; EMBL; X55313; CAA39021.1; -.
EMBL; M33294; AAA03210.1; -.
EMBL; M58286; AAA36753.1; -.
EMBL; M63121; AAA36754.1; -. REPEAT REPEAT PDB; 1TNR; 31-JUL-94.
PDB; 1NCF; 07-DEC-95.
PDB; 1EXT; 11-JAN-97. PIR; A35010; A35010. PIR; S12057; S12057. PIR; A38208; A38208. DOMAIN TRANSMEM DOMAIN CHAIN SIGNAL PROSITE; PS50017; DEATH_DOMAIN; 1. PROSITE; PS00652; TNFR_NGFR_1; 3
PROSITE; PS50050; TNFR_NGFR_2; 3. SMART; MIM; 142680; Genew; InterPro; IPR000488; InterPro; IPR001368; Receptor; Apoptosis; Transmembrane; Glycoprotein; Repeat; Signal; A34899; GQHUT1. 191190; BC010140; AAH10140.1; SM00005; DEATH; 1. SM00208; TNFR; 4. HGNC:11916; TNFRSF1A. Polymorphism; 3D-structure. 291 211 234 455 82 125 455 POTENTIAL.
CYTOPLASMIC SUPERFAMILY MEMBER 1A, MEMBRANE FORM TUMOR NECROSIS FACTOR BINDING PROTEIN EXTRACELLULAR (POTENTIAL). TUMOR NECROSIS FACTOR RECEPTOR

PROTEIN

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81 CysargGluCysGluSerGlySerPheThralaSerGluAsnHisLeuArgHisCysLeu 100
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15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor receptor superfamily member 1A precursor (p60)
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TNFR-CYS 3.
TNFR-CYS 4.
N-SMASE ACTIVATION DOMAIN (NSD).
DEATH.
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Mismatches:
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the FMH, our station the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.ist.s.it.b./ann.n.c.) or send an email to license@isb.ch).
                                                                                                                                                                                     Cone 163:263-266(1995).

Cone 163:263-266(1995).

The PUNCTION: Receptor for THFSP2/THF-alpha and homotrimetron transfer of the activated receptor. The resulting death inducting caspase-8 to the activated receptor. The resulting death inducting signaling complex (DISC) performs caspase-8 proteolytic activation which intiates the subsequent cascade of caspases (signature peocles the subsequent cascade of caspases (signature peocles the subsequent cascade of caspases (signature) capecific cysteine proteases) mediating apoptosis (BY similarity).

Collection of the stranged of the signature of the signature of the subsequent cascade of caspases (signature). The BINDING TO THE EXTRACELLULAR DOMAIN OF THEN LEADS TO THE RECEPTORS DEATH DOMAINS PROVIDES A NOVEL MOLECULAR INTERACTS SIPE(THETALLY THE DEATH DOMAIN OF TRADD. THE COMPLEX A CTIVATES AT LEAST TWO DISTINCT SIGNALING CASCADES, APOPTOSIS AND THE SIGNALING (BY SIMILARITY).

Collection of the subsequent of the similarity contains to beath DOMAIN.
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R HSSP; P19438; ITNR.

R InterPro; IPR000488; Death.

R InterPro; IPR001368; TNRR_c6,

R Pfam; PF00020; TNRR_c6; 1.

R Pr000m; PD000717; TNRR_c6; 1.

R Pr000m; PD000771; TNRR_c6; 1.

R PR00171; SM00009; TNRR; 3.

R PROSITE; PS00652; TNRP_NGRR_1; 3.

R PROSITE; PS00050; TNRR_DRRR_2; 2.

R PROSITE; PS00017; DEATH_DOMÁIN; 1.

R CEPPOR; Apoptosis; Transmembrane, Glycoprotein; Reprat; Simul.

T SIGNAL

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                                                                                                                            Suter B., Pauli Ü.H., "Cloning of the porcine p55 tumor necrosis factor
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Mammalia, Eutheria, Cetartiodactyla, Suina, Suidae, Sus
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TNFR-CYS 3.
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                                                                                    TISSUE=Kidney;
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Lewis M., Tartaglia L.A., Lee A.,
Wong G H., Chen E Y , Goeddel D.V.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAY-1992 (Rel. 22, Created)
01-MAY-1992 (Rel. 22, Last sequence update)
15-JUN-2007 (Rel. 41, Last annotation updat
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  SEQUENCE FROM N.A.
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Mammalia; Eutheria; Rodentia;
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                                                                                                       factor receptors demonstrate one receptor is species
                                                                                                                             and expression of cDNAs for two distinct murine tumor
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Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                    Bennett G.L.,
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EMBL; EMBL; EMBL; EMBL;

; L26349; ; M76656; ; M88067;

AAA59361.1; AAA40465.1; AAA40465.1; AAA40465.1;

M76655;

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REPULINE-92039815, PubMed-1657766;
Rothe J.G., Brockhaus M., Gentz R., Lesslauer W.;
"Molecular cloning and expression of the mouse Tnf receptor type b.";
Immunogenetics 34:338-340(1991).
[5]
                                                                                                                                                                  entities requires a license agreement (S or send an email to license@isb-sib ch).
                                                                                                                                                                                                                                    modified and this statement is not removed.
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                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Geodwin R.G., Anderson D., Jerzy R., Davis T., Brannan C.I., Copeland N.G., Jenkins N.A., Smith C.A.; "Molecular cloring and expression of the type 1 and type 2 murine receptors for tumor necrosis factor.",
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Strausberg R
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WITH THE DEATH DOMAIN OF TRADD. VARIOUS TRADD-INTERACTING PROTEINS SUCH AS TRAFS, RIP AND POSSIBLY FADD, ARE RECRUIT THEFI COMPLEX BY THEEIR ASSOCIATION WITH TRADD. THIS COMPLE ACTIVATES AT LEAST TWO DISTINCT SIGNALING CASCADES, APOPTOM-KAPPA B SIGNALING (BY SIMILARITY).
SUBCELLULAR LOCATION: Type I membrane protein.
SIMILARITY: CONTAINS 4 TNFR-CYS REPEATS.
                                                                                                                                                                                                                                                                ween the Swiss Institute of Bioinformatics
European Bioinformatics Institute. There a
by non-profit institutions as long as i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Specific cysteine proteases) mediating apoptosis (By similarity) SUBUNIT: TWE BINDING TO THE EXTRACELULAR DOMAIN OF THEFT LEADS HOMOTPEIMERIZATION. ONCE AGGREGATED THE RECEPTORS DEATH DOMAINS PROVIDE A NOVEL MOLECULAR INTERFACE THAT INTERACTS SPECIFICALLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    signaling complex (DISC) performs caspase-8 proteolytic activation which initiates the subsequent cascade of caspases (aspartate-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FUNCTION: Receptor for TNFSF2/TNF-alpha and homotrimeric TNFSF1/lymphotoxin-alpha. The adaptor molecule FADD recruits caspase-8 to the activated receptor. The resulting death-inducing
                                                                                                                                                                                                                                                                                                                                                                                                                                      SIMILARITY: CONTAINS 1 DEATH DOMAIN.
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M60468; AAA39751.1; -. M59377; AAA40464.1; -. X59238; CAA41922.1; -. X57796; CAA40936.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lesslauer W., Steinmetz M.;
function of the murine tumor
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                                                                                                                                                                                                  (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                There are no restrictions ng as its content is in
                                                                                                                                                                                                                                    Usage
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81 CysArgGluCysGluLysGlyThrPheThrAlaSerGlnAsnTyrLeuArgGlnCysLeu 100
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                                                                                                                   HSSP, P19418, 1EXT.

MGD: MG1:1314884; Thfrefla.

InterPro: 1PR000484; Death.

InterPro: 1PR000489; TNFR c6.

Pfam; PP00020; TNFR c6; 4.

Probow: PP00051; death; 1.

Probow: PP00051; DEATH; 1.

SMART; SM00005; DEATH; 1.

SMART; SM00209; TNFR; 3

PROSITE; PS50050; TNFR HGFP 1; 3
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PIR, S16677, S16677.
PIR, S19021, S19021.
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Ver. The post of the management of 1979 195 (1979).

11. FUNCTION: Receptor for TNFSF2/TNF-alpha and homotrimetric caspase. B to the activated receptor molecule FADD recruits caspase. B to the activated receptor. The resulting death industry signaling complex (DISC) performs caspase. B proteolytic activation which initiates the subsequent cascade of caspases (aspatrate specific cystaine proceases) mediating apoptosis (Hy similarity).

1. SUBURIT: THE BINDING TO THE EXTRACELLULAR DEWAIN to TNERL HOMOTRIMEDIZATION. CNCE ASSPECATED THE PECEFFORS DEATH DOMAINS PROVIDE A NOVEL MOLECULAR INFERACE THAT INFERACTS SPECIFICALLY WITH THE DEATH DOMAIN OF TRAID VARIOUS TRADD-INTERACTING PROFILES BY THEIR ASSOCIATION WITH TRADD. THIS COMPLEX AS THERE ASSOCIATION WITH TRADD. THIS COMPLEX AS THERE ASSOCIATION WITH TRADD. THIS COMPLEX METALING TO THE DEATH THOUGHT SIGNALING CASCADES, A PROFICED AND ADDLING THE ASSOCIATION WITH TRADD. THIS COMPLEX METALING TO THE AND ADDLING THE ASSOCIATION WITH TRADD. THIS GOMENT AND ADDLING THE ASSOCIATION WITH TRADD.
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                      121 LygAspThrValcysGlyCysLysGluAsnGinPheGlnArqTyrLeuSerGluThHHs 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=98273505; PubMed=9613449;
Liee E. F., Kehrli M. E. dr., Taylor M.J.;
"Cloning and sequencing of cDNA encoding bovine tumor nectosis lactor
(TNP)-receptor I.";
                                                                                                           241 CBBBACACCGTGTGTGTGTCTGCAGAAGCAGTACCGGCATTATTGGAGTGAAAACTTT 300
                                                                                      361 AAACAGAACACCGTGTGCATGCCTGCCAGGTTTCTTTTAAGAGAAAAACGAGTGTCTC 420
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                                                                                                                                                                                                                                                                                                                                                                                                                                  16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUNDT necrosis factor receptor superfamily member 1A precunsor (p.60)
(TNP-R1) (TNF-R1) (P55).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bos taurus (Bovine).
Bukaryotai Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Peceia; Rovoidea;
Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                           NF-KAPPA B SIGNALING (BY SIMILARITY).
--- SUBCELLULAR LOCATION: Type I membrane protein.
--- SIMILARITY: CONTAINS 4 TNFR-CYS REPEATS.
--- SIMILARITY: CONTAINS 1 DEATH DOMAIN.
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InterPro; IPR00408B; Death.
InterPro; PR000408; TNFR c6.
Pfam; PF00020; TNFR c6; 3.
Pfam; PF00021; death; 1.
Propom; P000071; TNFP c6; 1.
SMAPT; SMONOG; PRATH; 1.
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TCCTUTAUIMAUTUTAAGMAAGUUTTUGAUTGCACGAAGTTGTGC
                                                             ArgGlmAspThrIleCysHisCysHisMetGlyFheFheLeuLysGlyAlaLysCysIle
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PS50017; DEATH_DOMAIN; 1
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71.68%
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Matches:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Himmler A , Maurer-Fogy I., Kronke M., Scheurich P., Pfizermaior Lantz M., Olsson I., Hauptmann R., Stratowa C., Adolf G.R.; "Molecular cloning and expression of human and rat tumor necrosis factor receptor chain (p60) and its soluble derivative, tumor necrosis factor-binding protein."; DNA Cell Biol. 9:705-715(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            among autoimmune susceptible and resistant inbred rat strains.", Submitted (DEC-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=Various;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa, Chordata,
Mammalia; Eutheria; Rodentia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tumor necrosis factor receptor superfamily member 1A precursor (p60) (TNF-R1) (TNF-RI) (p55), reference or TNFR OR TNFR-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P22934; 091V30, Q91Y93,
01-AUG-1991 (Rel. 19, Created)
01-AWB-1992 (Rel. 21, Last sequence update)
15-3UN-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N A., AND VARIANTS VAL 230 AND PRO-295
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10116;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRIA_RAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                    SPECIFIC CYSTEINE PROTESSES) mediating apoptosis (By Similarity).
SUBUNIT: TWE EXWING TO THE EXTRACELLULAR DOMAIN OF TWEEL LEADS THE MOOTE MADE THE EXTRACELLULAR DOMAIN OF TWEEL LEADS THE RECEPTORS DEATH DOMAINS PROVIDE A NOVEL MOLECULAR INTERFACE THAT INTERACTS SPECIFICALLY WITH THE DEATH DOMAIN OF TRADD. VARIOUS TRADD-INTERACTING PROTEINS SUCH AS TRAPS, RIP AND PUSSIBLY FADD, ARE RECRUITED TO THERE COMPLEX BY THEIR ASSOCIATION WITH TRADD. THIS COMPLEX ACTUATES AT LEAST TWO DISTINCT SIGNALING CASCADES, AFOFTOSIS AND SUBCELLULAR LOCATION: Type I membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: CONTAINS 4 TNFR-CYS REPEATS. SIMILARITY: CONTAINS 1 DEATH DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  caspase-8 to the activated receptor. The resulting death-inducing signaling complex (DISC) performs caspase-8 proteolytic activation which initiates the subsequent cascade of caspases (aspartate-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FUNCTION: Receptor for TMFSF2/TNF-alpha and homotrimeric TMFSF1/lymphotoxin-alpha. The adaptor molecule FADD recr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sciurognathi,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata, Vertebrata, Euteleostomi;
Sciurognathi, Muridae, Murimue, Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            161
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CASCADES, AFOFTOSIS AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          recruits
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EMBL; AF329976; AAK53562.1; -EMBL; AF929977; AAK53563.1; -EMBL; AF929987; AAK53564.1; -EMBL; AF329978; AAK53564.1; -EMBL; AF329979; AAK53566.1; -EMBL; AF329980; AAK53566.1; -EMBL; B36655; B36555; B365555; B365555; B36555; B365555; B365555; B365555; B365555; B365555; B365555; B365555; B365555; B365555; use by non-profit institutions as long as its content is in no entitles requires a license agreement ? Pfam; PF00020; TNFR_C6; 4.
Pfam; PF00511: Acc: This SWISS-FKOT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its InterPro; IPP000488; Deat InterPro; IPR001368; TNFR EMBL; M63122 AAA42256.1; death; 1. moved. Usage by and for commercial (See http://www.isb-sib.ch/announce/

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AGCTGCTCCAAATGCCGAAAAGGAAAATGGGTCAGGAGGATCTCTTCTTGCAGTGGAC 240
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H -> P (IN STRAINS LEW/NHSD, ACI/SEGHSD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 AAGTGCCACAAAAGGAAACGTTGTACAATGACTGTCCAGGGCGGGGGGAGGATACGGAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 GATAGTGTGTGTGTGTAGAAAATATATATGCACCTCAAAATAATTGGATTTGCTGTACC 60
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                                                                                                                    Paraptor; Apoptosis; Trānsmembrane; Glycoprotein; Repeat; Signal.
SIGNAL
                                                                                                                                                                                                                                                                                                                                              N-SMASE ACTIVATION DOMAIN (NSD).
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TNFR-CYS 2.
TNFR-CYS 3.
                                                                                                                                                                                                                         POTENTIAL.
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                                                                                             PROSITE; PS50017; DEATH DOMAIN; 1
                                                         PROSITE, PS00652, TNFR NGFR 1; 3.
PROSITE, PS50050, TNFR NGFR 2; 3.
ProDom, PD000771, TNFR_c6; 1.
SMART, SM00005; DEATH; 1.
SMART, SM00208; TNFR; 3.
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                                                                                                                                                                                         Q9ERG3, Q8VHC0,
15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation update)
14-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, L
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Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
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-:- TISSUE SPECIFICITY: Ubiquitous.
-:- SIMILARITY: CONTAINS 3 TNFR-CYS REPEATS.
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DOMAIN 1 9 CYTOPLASMIC (POTENTIAL).
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                                         SEQUENCE FROM N.A. (ISOFORMS 1, 3 AND 4), TISSGUELLYMBOOID, MEDLINE 97088617, PubMed=8934525, KILSJO J., FAVELT , dialy Y.F., Goeddel Silling C.T., Brown F., Faver S.W.
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JUNES 19972, P78507,

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Indels:
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                                                                                       D V . Giles K.M.,
                                                                                                                                                                                                                AND MUTAGENESIS
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42
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                                                                                           Pun K -T
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Thome M., Bornand T., Habne M., Schreeter M., Wilson A., French L.E. Erymning J.L., Macdonald H.F., Tschopp J., "TRAME, a novel apoptosis-mediating receptor with sequence homology to tumor necrosis factor receptor 1 and Pas(Apo-1/CD95) ", Immunity 6:79-88(1997).
                                                                                                                                                                                                                          Chaudhary P.M., Hood L.E.; Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases. Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases. i- FUNCTION: Receptor for TNFSF12/APO3L/TWEAK. Interacts directly with the adaptor TPADD Mediates activation of NF-kappaB and
                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=Brain, and Fetal lung;
MEDLINE=97205335; PubMed=9052839;
Bodmer J.-L., Burns K., Schneider P., Hofmann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Shiorawa S., Yonishi
Hayashi S., Sato M.,
Submitted (NOV-2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Biochem. Biophys. Res. Commun. 242:376-379(1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "LARD: a new lymphoid-specific death domain containing receptor regulated by alternative pre-mRNA splicing.";
Proc. Natl. Acad. Sci. U.S.A. 94:4615-4619(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Marsters S.A., Sheridan J.P., Donahue C.J., Pitti R.M., Gray C.L., Goddard A.D., Bauer K.D., Ashkenazi A.; "App-3, a new member of the tumor necrosis factor receptor family, contains a death domain and activates apoptosis and NF-kappa-B.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. Din W.S. Degli-Esposri M.A., Din W.S. Submitted (JAN-1997) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chinnaiyan A.M., Q'Pourke K., Yu G.-T., Lyons P.H., Garg M., Duan D.F., Xing L. Gentz R., Ni J., Dixit V.M., "Signal triansduction by DR3, a death domain-containing receptor related to TNPR-1 and CD95.";
Science 274.990-992(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nature 384·372-375(1996).
                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 7-417 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE OF 4-417 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Warzecha K., Ribeiro P., Charlot C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=98113360; PubMed=9446802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Screaton G R , Xu X -N , Olsen A.L., Cowper McMichael A.J., Bell J.I.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-97272273; PubMed=9114039;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. (ISOFORMS 1; 2; 3; 4; 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=97148200; PubMed=8994832;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=97081063; PubMed=8875942;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Umbilical vein endothelial cells;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. (ISOFORM 1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "A new death receptor 3 isoform: expression in human lines and non-Hodgkin's lymphomas.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=Heart;
ALTERNATIVE PRODUCTS: 12 ISOFORMS; 1/WSL-1/LARD-1A (SHOWN HEPE
2/LARD-1B, 3/WSL S1/LARD-3, 4/WSL-S2/LARD-2, 5/LARD-4/LARD-11,
6/LARD-5, 7/LARD-6, 8/LARD-7, 9/LARD-8, 10/LARD-9, 11/BETA AND
                                                                                                                                                              homeostasis.
SUBUNIT: HOMODIMER. INTERACTS STRONGLY VIA THE DEATH DOMAINS WITH
                                                                                            SUBCELLULAR LOCATION Type I membrane
                                                                                                                THE TWEF1-ASSOCIATED MOLECULE TRADD AND THE TWEF1 RECEPTOR TO ACTIVATE AT LEAST TWO DISTINCT SIGNALING CASCADES, APOPTOSIS AND NF-KAPPA B SIGNALING.
                                                                                 and 11);
                                                                                                                                                                                                          induces apoptosis. May play a role in regulating lymphocyte
                                                             (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Biol. 6:1669-1676(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             M N A (ISOFORM 1).

Funishi Y , Mulayama E , Mukae N , Yamamoto Sato M , Shiozawa K , Tsukamoto Y ;

OV-2000) to the EMBL/GenBank/DDBJ databases
                                                                               Secreted (isoforms 3, 4, 5, 6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (ISOFORMS 11 AND
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                                                                                                                                                                                                                                                                                                                                                                                                                       er P., Hofmann K., Ste
Schröeter M., Wilson
Tschoon T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Renard N.,
                                        1/WSL-1/LARD-1A (SHOWN HEPE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Smith C
                                                                             protein (isoforms 1, 2, 5, 7, 8, 10 and 12)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6; 7; 8;
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TISSUE SPECIFICITY: ABUNDANTLY EXPRESSED IN THYMOCYTES AND LIAMPHOCYTES. DEFECTED IN LYMPHOCYTE-PICH TISSUES SUCH AS THYMUS, COLON, INTESTINE, AND SPILEEN. ALSO FOUND IN THE PROSTATE. PTM: GLYCOSYLATED (PROBABLE).
                                                                                                                                                                                                                                                                                                                 CAUTION: Ref.5 reports for isoform 4 at position 208 a serine residue instead of arginine
12/BETA SOLUBLE; ARE PRODUCED BY ALTERNATIVE SPLICING
                                                                                                                                                                                                                  SIMILARITY: CONTAINS 4 THER CYS REPEATS. SIMILARITY: CONTAINS I DEATH DOMAIN
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Receptor; Apoptosis; Transmembrane; Alternative splicing; Signal; TUMOR NECROSIS FACTOR PECEPTOR EXTRACELLULAR (POTENTIAL). POTENTIAL. CYTOPLASMIC (POTENTIAL). SUPERFAMILY MEMBER 12 DEATH.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY. TNFR-CYS 2, TNFR-CYS 3. TNFR-CYS 4 TNFR-CYS 1. PROSITE: PS00652; TNFR NGFR 1; 2. PROSITE; PS50050; TNFR NGFR 2; 1. PROSITE; PS50017; DEATH DOMAIN; 1 U94502, AACS1307.17 U94503, AACS1308.17 U94506, AACS1711.17 U94506, AACS1711.17 U94509, AACS1713.17 U94509, AACS1713.17 U94509, AACS1715.17 U94512, AACS1716.17 AF026070; AAC39556.1; -. EMBL, AF026971; AAB82288.1; -. EMBL, AB051850; BAB40662.1; -. EMBL, AB051851; BAR40663.1; -. InterPro; IPR000488; Death. InterPro; IPR001368; TNFR_c6. AAC50819.1; -.. AAB41434.1; -.. AAR41435.1; -AAB39714.1; -. AAC51306.1; -. AAC51309.1; -. EMBL; Y09392; CAA70561.1; EMBL; Y09392; CAA70559.1; EMBL; Y09392; CAA70560.1; EMBL, U75380, AAC51192.1; -. EMBL, U75381; AAC51193.1; -. EMBL, U83597, AAB41432.1; -. Genew, HGNC:11910, TNFRSF12 MIM: 603366; -. Pfam; PF00020; TNFP cs; 2. Pfam; PF00531; death; 1. AAC50819.1; AAB39714.1; AAB40918.1, 71 163 163 192 413 47 47 61 70 89 Repeat; Polymorphism; SIGNAL 1 25 200 223 223 34 116 116 43 33 48 48 48 48 48 67 73 U72763; EMBL; U78029; EMBL; U74611; EMBL; U94501; EMBL, U94504; EMBL; U94507; EMBL; U94508; U83599; U83600; DOMAIN TRANSMEM DOMAIN DISULFID DISULFID DISULFID DISULFID DISULFID REPEAT DOMAIN REPEAT REPEAT REPEAT EMBL; EMBL; EMBL; EMBL; EMBL; EMB1,; THAIN EMBL; EMBL:

BY SIMILARITY. N. LINYED (GLCNAC) (POTENTIAL. N. LINKED (GLCNAC) (FOTENTIAL. MISSING (IN ISOFORM 6, ISOFORM 7 AND ISOFORM 7). MISSING (IN ISOFORM 8). SRRDTDCGTCLPGFYE - * HPSVTLGGRIPHSSTTS (IN MISSING (IN ISOFORM 7). MISSING (IN ISOFORM 7). MISSING (IN ISOFORM 1). STLGSCPEPCAAV GWAQMFWAVALLAGIAVHILLAGIA (IN ISOFORM 1). STLGSCPEPCAAV GWAQMFWAVALLAGIAVHILLAGIA (IN ISOFORM 3). STLGSCPERCAAV GWAQMFWAVALLAGIAVHILLAGIA (IN ISOFORM 3). STLGSCPERCAAV GWAQMFWAVALLAGIAVHILLAGIA (IN ISOFORM 3). STLGSCPERCAAV GWAQMFWAVALLAGIAVHILLAGIA (IN ISOFORM 12). MISSING (IN ISOFORM 12).	0 Length: 417 Matches: 48 Conservative: 20 Mismatches: 21 Indels: 7 HUMAN (1-417)	COCCTCAAATAATTCSATTTSCTSTACTAASTROCTACAAAAAAAAATATTACTTAATTAATTAATTAATTAA	CACTGCCTCAGCTGCTCCTAATGCGSAAAGGAAATG 207 	
1130 1162 1101 1101 1106 1106 1106 1106 110	1.49e-10 200.50 42.24% 29.81% 11.31% X TR12_H	ATTCGATTT HyLeuPheC CGGGGGCAG.	ACCTCAGA- isHisAsnE isHisAsnE irctcttitt	ATTATTGGI BUCYS GCCTCAAT- 'SLEUASDCI CCGTGTGCI ISPCYSGIYT ISPCYSGIYT INTSETTHYI
1138 1141 1141 1141 1149 1149 1140 1140 1140	is: larity: (1.483)	TCAAAATP ::: sLyslleC TCCAGGC.	AGAAAACC 	GTACCGGC ::: Phi-valc CAGCCTCT REGINProc ACAGAACA GASPThrA GASPThrA CCTGT CCTGT CTGT CTGT
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	Aliga Scor Perd Perd Perd Quest UB:		6 6 6 6	

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RA Kawal J. Shinagawa A. Shibata K., Yoshino M., Itoh M., Ishii Y., EAA Arakawa T. Hara A., Fikinishi Y., Korno H., Adachi J., Fakuda S., EAA Arakawa K., Irawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I., Rawa K., Irawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I., Rayawa K., Irawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I., Rayawa K., Irawa M., Ogishi T., Gissi C., King B., Kochiwa H., Rayachi M., Gasterland T., Gissi C., King B., Kochiwa H., Rayachi M., Gasterland T., Gissi C., King B., Kochiwa H., Rayachi M., Staukli F., Sazuki R., Thmita M., Wayner I., Washio T., Rayachi M., Staukli F., Sazuki R., Thmita M., Wayner I., Washio T., Rayachi M., Staukli F., Sazuki R., Thmita M., Wayner I., Washio T., Rayachi M., Staukli R., Thunga M., Carninci P., de Bonaldo M., Rayachi M., Carlinci P., de Bonaldo M., Rayachi M., Sayaki M., Jee N. H., Blide J., Raill D., Bojunga N., Carninci P., de Bonaldo M., Jee N., Kanja M., Jee N. H., Rayachi M., Jee N., Jee
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QSER62, QSCZA4, QSVHB9;

15.JUN-2002 (Rel. 41, Created)

15.JUN-2002 (Rel. 41, Last sequence update)

15.JUN-2002 (Rel. 41, Last sequence update)

15.JUN-2002 (Rel. 41, Last sequence update)

10.DON DROSES factor receptor superfamily member 22 (Tumor necrosis factor receptor pec homolog 2) (TNF receptor family member SOBa)

THERESIAL OF THERESIALL OF THERH2

Mus musculus (Mouse).
                            EMBL; AJ2/6265; CAC16406.1; -. FWRI; AJ276865; CAC27353 1; -. EMBL; AY046551; AAL05073 1; -. EMBL; AX012894; EAB28502.1; -.
                                                                                                                                                                           use by non-profit institutions as long a modified and this statement is not removed. Entities requires a license agreement (See les send an email to licenseaisb-sib ch)
                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Functional amotation of a full-length mouse oDNA collection.
Nature 409:685-690(2001).
-i- STECELLULAR LOCATION: Type II membrane profein (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STPAIN=057P1/6J; TISSUE-Embryo; MEDLINE=21085660; PubMed=11217851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Risser P., Mao W., Baldwin D.T., Pan G.; "Characterization of COBs, a murino momber of the TMPP family.", Submitted (JUD-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTRANN-120/Sv; TISSUB-Embryonic stem cells;
MEDITIE-2019079, PubMed-1063728;
MEDITIE-2019079, PubMed-1063728;
Fingemann S., Stroediske M., Paulsen M., Franck O., Reinhardt R.,
Lane N., Brik W., Walfer J.;
Lane N., Brik W., Walfer J.;
"Sequence and functional comparison in the Beckwith-Wiedemann region:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOUSE
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Jahnulia, Eutheria, Rudontia, Soluropoathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             α
                                                                                                                                                                                                                                                                                                                                                                                                                      SIMILARITY: CONTAINS 3 THER-CYS REPEATS
                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE SPECIFICITY: Ubiquitous
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                                                                                                                                                                                                                                    Usage
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InterPro; IPRO1358; TNFR c6.
Ffam, PF00020; TNFR c6; 3.
SMART; SM00208; TNFR; 3.
                                                                               TNP3 HUMAN
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                                                                                                                                                                                AsnThrValCysSer 166
                                                                                                                                                                                                                        AACACCGTGTGCACC 381
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAGSAACCTACTTGTACAATGACIGTCCAGGCLCGGGGAAAGGGAATACGGACTGCAGGGAG 129
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(Rel. 29, Created)
(Rel. 29, Last sequence update)
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BY SIMILARITY.

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RRSASVAWP1 -> NPRNRLFLLL (IN REF. 2)
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SIGNAL-ANCHOR (TYPE II MEMEKANE PROTEIN)
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Indels:
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This SWISS-PROT entry is copyright. It is produced through a collaboration the twise institute of Richardies and the FMEL outstation the European Bloinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.ish-sib.ch/announce/or sond an email to license@isb-sib.ch.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIANE-20261554, FubMed±10799510;
Roomey 1 A. Ratrovich K D. Glass A A. Rorboroglu S., Benedict C.A., Whitbock J C., Chen G H., Eisenberg P J., Ware C F ;
"The lymphotoxin-beta receptor is necessary and sufficient for LIGHT mediared apoptosis of tymor cells";
J. Biol. Chem. 275:14307-14315 (2000)
J. FUNCTION Receptor for the heterotrimetic lymphotoxin containing LTA and LTR, and for TNRS14/LIGHT. Promotes apoptosis via TRAES and TRAES May play a role in the development of lymphoid organs in SURGNIT. Self-associates.
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15.JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor receptor superfamily member 3 precursor
[Lymphotovin-heta receptor) (Tumor necrosis factor receptor 2 related
                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-91252381, PubMed=8486360;
Raens M , Chaffanet M., Cassiman J.J., den Berghe H., Marynen P.;
"Construction and evaluation of a hncDNA library of human 12p
transcribed sequences derived from a somatic cell hybrid.";
                                                                                                                                                                                                     Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Crowe P.D., van Arsdale T.L., Walter B.N., Ware C.F., Hession C., Ehrenfels B., Browning J.L., Din W.S., Goodwin R.G., Smith C.A.; Alamphotoxin-beta-specific receptor."; Science 264-270-710(1994).
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PROSITE; PS50060; TWFP_NGFR_2; 1.
PROCPICT: Apoptoxis; Transmembrane; Glycoprotein; Repeat; Signal SIGNN; 1.
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Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
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                                                                                                  protein) (Tumor necrosis factor C receptor).
LTBR OR TNPRSF1 OP TNFCR.
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ProDom; PD000771; TNFR c6; 1.
SMART; SM00208; TNFR; 4.
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EMBL; BC026262; AAH26262.1;
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                                                                                                                                                                             Homo sapiens (Human)
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01-AUG-198R (Pel. 08, Last sequence update)
11-AUG-2001 (Pel. 49, Last annotation update)
Tumor necrosis factor receptor superiamily member 16 precursor How affinity nerve growth factor receptor) (NGF receptor) (Gp80 LNGFR)
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 EXTRACELLULAR (FOTENTIAL).
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                                CYTOPLASMIC (POTENTIAL).
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  DISULFID
                                                                                                                                                                                                    Repeat; Phosphorylation; Signal SIGNAL 1 20
                                                                                                                                                                                                                                           PROSITE; PS00652; TNFR_NGFR_1; 3. PROSITE; PS00050; TNFR_NGFR_2; 4. PROSITE; PS50017; DEATH_DOMAIN; 1
                                                                                                                                                                                                                                                                                                        InterPro; IPR001368; TNFR_c6
Pfam; PF00020; TNFR_c6; 4.
Ptam; PF00531; death; 1.
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Genew; HSNC:7809; NGFR.
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"A constitutive country."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Johnson D., Lamahan A., Buck C.P., Sehgal A., Morgan C., Mercer E. Bothwell M., Chao M., "Baychession and structure of the human NGF receptor.", Cell 47:545-554(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (p75 ICD) (bow ...
NGER OR INPROPIE.
Homo sapiens (Human)
Notable.
                                                                                                                                                                    DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; M21621; AAA36363.1; -.
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or send an email to libense@isb-sib.ch).
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Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                      REPEAT
                                                                                                                  REPEAT
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Mol Cell Riol 8:3160-3167(1988)
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MEDITHE 89090000; Pubmed: 1850481,
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                                                                                                                                                                                                                                                                                                                                   InterPro; IPR000488; Death.
InterPro; IPR001368; TNFR_c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             associated cell death executor.
SUBCELLULAR INCATION. Type I membrane protein.
PTM: N-AND 0-glycosylated.
PTM: Phosphorylated on serine residues.
SIMILARITY. CONTAINS 4 THER-CTS REFEATS.
SIMILARITY. CONTAINS 1 DEATH IDMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                ADSD19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ICD) (Low affinity neurotrophin receptor p75NTR)
CR TMFRSF16.
                                                                                                                                                                                                                                                                               Aportosis, Neurogenesis, Transmembrane; Glycoprotein;
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                                                                                                      N.H.O.
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TNFR-CYS 2.
TNFR-CYS 3.
                                                                                                                                                      EXTRACELLULAR (POTENTIAL).
POTENTIAL.
                                                                                                                                                                              TUMOR NECROSIS FACTOR RECEPTOR SUPERFAMILY MEMBER 16.
                                                                             DEATH
                                                                                         TNFR-CYS 4.
                                                                                                                                          CYTOFIASMIC (FOTENTIAL)
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Best Local Similarity:
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                                                                                   Q920W1,

15-JUN-2002 (Rel. 41, Created)

15-JUN-2002 (Rel. 41, Last sequence update)

15-JUN-2002 (Rel. 41, Last sequence update)

15-JUN-2002 (Rel. 41, Last annotation update)

Tumor necrosis factor receptor superfamily member 16 precursor (Low-affinity nerve growth factor receptor) (NGF receptor) (Low affinity neurotrophin receptor p75NTR).
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SEQUENCE FROM N.A
                                     Eukaryota; Metazca,
Mammalia, Eutheria,
                                                                  Mus musculus (Mouse)
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                       NCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          32 CysProThrGlyLeuTyrThrHis-----SerGlyGluCysCysLysAlaCysAsn 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              70 AAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCAGGATACGGACTGCAGGGAG
                                                                                OR TNFRSF16.
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                                                                                                                                                                                                                                                                                                                               --- AACGAGTGTGTCTCCTGTAGTAACTGT--
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                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGTGCTTCAATTGCAGCCTCTGCCTCAATGGGACC---GTGCACCTCTCCTGCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspAlaValCysArgCys-----AlaTyrGlyTyrTyrGlnAspGluThrThrGly 120
                                                                                                                                                                                                                                                                                                                                                       LysGinAsnThrValCysGluGluCysFroAspGlyThrTyrSerAspGluAlaAsnHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACACCGTGTGTGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTTTTC 303
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182.50
47.53%
32.10%
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                                       Rodentia; Sciurognathi, Muridae,
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                                                     Craniata, Vertebrata,
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Mismatches:
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                                       Murinae,
                                        Mus
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                                                           FUNCTION: Low affinity receptor which can bind to NGF, BDNF, NT-3, AND NT-4. Can mediate cell survival as well as cell death of neural cells (By similarity). Binds to rables virus glycoprotein
                       Tuffereau C., Benejean J., Blondel D., Kieffer B., Flamand A.; "Low affinity nerve-growth factor receptor (p75NTR) can serve as a receptor for rables virus."; EMRO J. 17:7250-7259(1998).
                                                                                                                                          associated cell death executor (By similarity).
SUBCELLULAR LOCATION. Type I membrane protein (By similarity).
PTM: N- AND O glycosylated (By similarity).
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                                                                                                                             SUBINIT: Homodimer; disulfide-linked. Interacts with p75NTR
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                                                                                                                                                                               PTM: Phosphorylated on serine residues (By similarity). SIMILARITY: CONTAINS 4 THER-CYS REPEATS. SIMILARITY: CONTAINS 1 DEATH DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TUMOR NECROSIS FACTOR RECEPTOR SUPERFAMILY MEMBER 16.
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TNFR-CYS 3.
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            MEDLINE:99077793; PubMed:9857182;
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InterPro; IPR000488; Death.
InterPro; IPR001368; TWFR_G6.
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Pfam, PF0002c, TNFR c6, 4
SMART, SM0005, DEATH, 1.
SMART, SM00208, TNFR, 3.
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P25119; P97893; Nav. 1927 (Teated) 01-MAY-1992 (Rel. 22, Created) 101-MAY-1992 (Rel. 22, Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation update) 15-JUN-2002 (Rel. 41, Last annotation update) 10-JUN-2002 (Rel. 41, Last superfamily member 18 precursor factor receptor superfamily member 18 precursor (Tumen INFPSFIR OR TNFP 2) (MAF R2) (P75).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97 AspalavalCysArgCys-----SerTyrGlyTyrTyrGlnAspGlnGluThrGly 11:
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                                                                                                                                                                                                                                                                                       IGCALACTORACTOR 1.4
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                                                                                     10 TGTCCCCAAGGAAATATATCCACCTCAAAATAATTCGATTTGCTGCTGCAAGTGCAACT
                                                                                                                                                               25 CysSerThrGlyMetTyrThrHis-----SerGlyGluCysCysLysAlaCysRam 41
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Copeland N.G., Jenkins N.A., Smith C.A.;
"Molecular cloning and expression of the type 1 and type 2 muttier
receptors for tumor necrosis factor.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60 CysLeuAspSerValThrPheSerAspValValSerAlaThrGluProCysLysPreCys
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Lewis M., Tartaglia L.A., Lee A., Bennett G.L., Fice G.C.,
Wong G H., Chen E.Y., Goeddel D V.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 AAACAGAACACGTGTGC---ACCTGCCATGCAGGTTTCTTTTTTAAGAAA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              187 TCCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATCTCTTTCT
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US:09 882-735-1 (1-483) x TR16_MOUSE (1-417)
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FENCTION: Receptor with high affinity for Insergifur-alpha approximately 5-fold lower affinity for Loutnimeric TREEFI/Jumphotoxim alpha (By similarity).

FINESEI/Jumphotoxim alpha (By similarity).
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EMBL; M59378;
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Proper, PP000271; TNFR_c6, 1
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40 CycClnlleSerGlnGluTyrTyrAspArgLysAlaGlnMetCysCysAlaLysCysPro 59
                         10 TOTOTOTOAAGGAAAATATATOOAOOOTOAAAATAATTOGATTTGGTGTATCAAGTGGCAC 69
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ESCOCS2, TWER_NGER_1, 2.
PRESCRESO, TWEE_NGER_2; 3.
Transmembrane, Glymoprofein; Repeat; Signal
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                                                                                                                                                                                                                       MEDITIE=2003.2073, PubMed=10562494;
Cameron C., Hota Mitchell S., Chen L., Barrett J.,
Macaulay C., Willer D., Evans D., McFadden G.;
"The complete DNA sequence of myxoma virus.";
Virology 264.298-318 (1999).
                                                                     This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN the European Bioinformatics Institute. There are no resti
                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=91335768; PubMed=1651597;
Upton C., Macen J.L., Schreiber M., McFadden G.;
"Myxoma virus expresses a secreted protein with homology to the tumor necrosis factor receptor gene family that contributes to viral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=31530;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Myxoma virus (strain Lausanne)
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01-APR-1993 (Rel. 25,
15 JUN 2002 (Rel. 41,
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#1-AFF-1993
                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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                                                                                                                                                    ANTIVIRAL EFFECTS OF THE CYTOKINE.
-!- SIMILARITY: CONTAINS 4 THER-CYS REPEATS
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                                                                                                                                                                                        FUNCTION: BINDS TO THE-ALPHA AND BETA. FROBABLY PREVENTS THE TO REACH CELLULAR TARGET AND THEREBY DEAMPENING THE POTENTIAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ArgAlaProAsnGlyAsnValLeuCysLysAlaCysAlaProGlyThrPhe-----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last sequence update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PPT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        326 AA
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                                                                                                                                                                                                                                                                                          Cao J
                                                                                             EMBL
                                                                                                           a collaboration
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use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and foentities requires a license agreement (See http://www.isb-sib.or.send an email to license@isb-sib.ch).

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111 TyrCysLeuLeuLysGlyGlnGluGlyCysArgIleCysAlaProLysThrLysCysPro 130
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TNFP-CYS 2
TNFP-CYS 3
TNFR-CYS 4
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Probom; P000207 TNFR c6; I.
SMART; SM00208; TNFR; J.
PROSITE; PSGOGFQ; TNFR NGFP I; 2.
PPOSITE; PSGOGFQ; TNFP NGFP I; 2.
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                      EMBL, M75181, AAA4632.1; -.
EMBL, AF120726; AAF15046.1; -.
EMBL, AF170726; AAF14887.1; -.
EMBL, A23729; CAA01688.1; -.
PIR, A40566; GQVZM.
HSSP; P19438; INCF.
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Broinformatics and the EMEG outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb.bib.ch/announce) or send an email to license@isb.sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=91207415; PubMed=1850261;
Smith C.A., Davis T., Wignall J.M., Din W.S., Farrah T., Upton C.,
McFadden G., Goodwin R.G.;
"T2 open reading frame from the Shope fibroma virus encodes a soluble
form of the TNP receptor.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIINE-87321103; PubMed-2820128; Upton C , Delange A M , McFadden G ; Tubmorigenic poxviruses: genomic organization and DNA sequence of the Telomeric region of the Shope fibroma virus genome."; Virology 160:20-30(1987).
                                                        171 IleSerValGluPheAsnLeuTyrProValAsnAspThrSerCysThrThrThrAlaGly 190
394 TTETTTETAAGAGAAAAAGAGTGTGTGTGTAGTAAGTGTAAGAAAAGGGTGGAAGGGGG 47.
                                                                                                                                                        Riochem. Biochys. Fer Comman. 176.335 342(1991).
-!- FUNCTION: BINDS TO TNF-ALPHA AND BETA. PROBABLY PREVENTS TNF TO REACH AND THEREBY DEAMFEHING THE POTINITAL ANTIVIRAL EFFECTS OF THE CYTOKINE.
-!- SIMILARITY: CONTAINS 4 THER-CYS REPEATS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Viruses; dsDNA viruses, no RNA stage; Poxviridae; Chordopoxvirinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAY 1992 (Rel. 22, Created)
01-MAY 1992 (Rel. 22, Last segmented update)
15-UTN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor soluble receptor precursor (Protein T2)
                                                                                                                                                                                                                                                                                                                                                                                                                     325 AA
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Pfam; PF00020; TNPR c6; 2.
Probom; PD000701; TNFR c6; 1.
PMORITE, SMADT, SMAD
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EMBL, A23727; CAA01687.1, -.
PIR; B43692; B43692.
                                                                                                                                                                                                                                   454 ACGAAGTTGTGCCTACCC 471
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                                                                                            Sue scrofa (Pig).
Elkarysta, Metacsa,
Mammalia, Eucheria,
                                                                                                                                                                                                                                                                receptor) (Apoptosis-mediating surface antigen FAS)
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                                                                                                Euteleostomi;
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Best Local Similarity:
Query Match:
US-09-882-735-1 (1-483) x TNR6_FIG (1-332)
                                                                                                                                        Percent Similarity:
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SMART; SM00208; THEF; 3.
PROSITE; PS0065; THER NGER 1, 2.
PROSITE; PS50050; THER NGER 2; 2.
PROSITE; PS50017; DEATH_DOMAIN; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro, IFF001368, TNI
Efam; FF00020, TNFR_ce;
Pfam; PF00531; death; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL, AJOCICC; CA
HSSP; P25445; 1DDF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   myccardium of pig.";
Submitted (JAN-1998) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              partiting B., Hoffmann J., Holtz J., Schulz P., Heisch G., "Expression of apoptosis-associated genes in hibernating myocardium of pig.";
                                                                                                                                                                 CARBOHYD
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                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                     TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                      Receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR000488;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      both (By similarity).
SUBCELULIAR LOCATION: Type I membrane protein.
DOMAIN: CONTAINS A DEATH DOMAIN INVOLVED IN THE BINDING OF FADD,
AND MAYBE TO OTHER CYTOSOLIC ADAPTOR PROTEINS.
SIMILARITY. CONTAINS 3 THFR-CYS REPEATS.
SIMILARITY. CONTAINS 1 DEATH DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FUNCTION: Receptor for TNPSP6/FASL. The adaptor molecule FACE recruits caspase-8 to the activated receptor. The resulting death-inducing signaling complex (DISC) performs caspase-8 protectelytic activation which initiates the subsequent cascade of caspases activation which initiates the subsequent cascade of caspases activation specific systems proceduately approximate. FASC aspartate specific systems proceduately approximate from the induction of peripheral tolerance, in the antigen-stimulated suicide of mature T-cells, or
                                                                                                                                                                                                                                                                                                                                                                                                                                     Apoptosis;
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193
193
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TNFR-CYS 2.
TNFR-CYS 3.
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1 GATAGTGTGTCCCCAAGGAAAATATATCCACCCTCAAAATAATTCGATTTGCTGTACC 60

40	4) GluSerGluCysProGluGlyGlnHis	ArgGluGlyGlnPheCysCysGln 59
ζ	61 AAGTOCCACAAAAGAAACCTACTTGTACA	GCAGGATACGGAC 120
40		 yGlyAlaProGln 79
ò,	121	CCTCAGACACTGC 177
qu	b 80 CysValProCysSerGluGlyGluAspTyrThrAspLysAsHisHisSerSerLysCys	 sSerSerLysCys 99
ολ		rrcrigcacagra 237
90	h 100 ArgArgCysArgValCysAspGlyGluHisGlyLeuGluValGluLysAsnCysThrArg 119	::: rsAsnCysThrArg 119
ò,		ATTGGAGTGAAAG 297
선	h 120 ThrGlnAsnThrLysCysArgCysLysProAsnPhePheCysHisThrSerGln 137	:ThrserGln 137
ζ	y 298 CTTTTCASTGCTTCAATTCAATTCTSCTCAATGGGACCGTGCACCTCTCTGCCAG 357	secretecieses 357
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ολ	y 858 GAGAAACAGGGTGTGC 378	
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Search completed: January 6, 2003, 03:44:39 dob_time : 28.5 secs

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O= r_qnr_1 /USPTO_pepod/USO9882735/runat_030PEX=repure_2 - TPAMS=human40.cdi - LIST=45

UNITS=bits START=1 - END=1 - MATPIX=blosum62 - TPAMS=human40.cdi - LIST=45

UNITS=bits START=1 - FAND=1 - MATPIX=blosum62 - TPAMS=human40.cdi - LIST=45

UNITS=bits START=1 - FAND=1 - MATPIX=plosum63 - AND=15 - AND=1
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                                                                                                                                                                                   January 6, 2001, 01-17-59; Search time 51.5 Seconds
                        Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                        protein search, using frame_plus_n2p model
GenCore version 5.1.3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      671580 seqs, 206047115 residues
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Listing first 45 summaries
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Xgapop 10 0, Xgapext
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09dah8 qallus qall
072261 rewpex varu
057092 eetromelta
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QB9118 VARIOLA VII
OVIKG COMPOK VIII
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O9dqh7 qallus qall
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09PUS0
09DGH7
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SBULT 1

SBUD3

PRELIMINARY; PRT; 446 AA.

O95ND3;

01-DEC-2001 (TrEMBLrel. 19, Created)

01-DEC-2001 (TrEMBLrel. 19, Last sequence update)

01-DEC-2001 (TrEMBLrel. 20, Last annotation update)

10-DEC-2001 (TrEMBLrel. 20, Last annotation update)

10-DEC-2001 (TrEMBLrel. 20, Last annotation update)

10-DEC-2001 (TrEMBLrel. 20, Last annotation update)

11-DEC-2001 (TrEMBLrel. 20, Last annotation update)

11-DEC-2001 (TrEMBLrel. 20, Last annotation update)

12-DEC-2001 (TrEMBLrel. 20, Last annotation update)

13-DEC-2001 (TrEMBLRel. 20, Last annotation update)

14-DEC-2001 (TrEMBLRel. 20, Last annotation update)

15-DEC-2001 (TrEMBLRel. 20, Last annotation update)

16-DEC-2001 (NOV-2000) to the EMBL/GenBank/DDBJ databases.

17-DEC-2001 (NOV-2000) to the EMBL/GenBank/DDBJ databases.

18-DEC-2001 (NOV-2000) to the EMBL/GenBank/DDBJ databases.

18-DEC-2001 (NOV-2000) to the EMBL/GenBank/DDBJ databases.

18-DEC-2001 (NOV-2001) to the EMBL/GenBank/DDBJ databases.
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Query Match:
DB:
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Pfam; PP00531; MeRT_C6; 4.
SMART; SM00181; BGGF; 1.
SECSITE; PS00181; CYTTOCHROME_C, UNKNOWN_1.
FP08TTE; PS00191; DEATH DAMAIN; 1
FP08TTE; PS00195; TMFE_NGFR_1; UNKNOWN_1.
PP08TTE; PS00852; TMFE_NGFR_1; UNKNOWN_3.
FF08TTE; PS00852; TMFE_NGFR_2; 3172573777882
                                                                                                                                                                       (197530;
01-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-JUN 2002 (TrEMBLrel. 21, Last annotation update)
Tumor necrosis factor receptor p60 (Fragment).
Canis familiaris (Dog).
                                          TISSUE=BRAIN;
MEDLINE:21105032, PubMed=11182158;
Campbell S.E., Nasir L., Argyle D.J., Gault B.A.,
Bennett D.;
"Cioning of canine IL-1ra, TNFR and TIMP-2."; Vet. Immuno). Immunopathol. 78:207-214(2001).
                                                                                                  SEQUENCE FROM N.A.
                                                                                                                              NCBI_TaxID-9615;
                                                                                                                                          Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis
                                                                                                                                                        Eukaryota; Metazoa;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CysGluAsnGlyThrPheThrAlaSerGluAsnTyrLeuArgGlnCysLeuSerCysSer 103
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84.08%
82.89%
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01-JUN-1998 (TrEMBLrel. 06, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation updat
Submitted (JAN-1998) to the EMBL/GenBank/DDBJ databases
                           SEQUENCE FROM N.A.

Duthic S., Nasir L., Eckersall P.D.,

"Felis catus tumour necrosis factor receptor p60 (TNFR-1) mRNA,
partial cds.",
                                                                                                                                                                     NCBI_TaxID=9685;
                                                                                                                                                                                                    Bukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Carnivora; Fissipedia; Felidae;
                                                                                                                                                                                                                                                                                                                        Tumour necrosis factor receptor p60 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                            Q95185;
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PROSITE; PS00186; EGF 2; UNKNOWN 1.

PROSITE; PS00652; TNFR NGFR 1; 3

PROSITE; PS50050; TNFR_NGFR_2; 2.
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InterPro; IPR001368; TNFR_c6.
Pfam; FF00020; TNFR_c6; 3.
                                                                                                                                                                                                                                                                 Felis silvestris catus (Cat).
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(J.)
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189 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
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21324 MW;
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                                                                                                                                                                                                                                                                                                                                                                     84 CysGluAsnGlyThrPheThrAlaSerGluAsnTyrLeuArgGlnCysLeuSerCysSer 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Podentia, Sciurognathi, Muridae, Musimae, Mus
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                                                                                                                           189 AA; 21420 MW; F3FBE0CE809D7DBE CRC64;
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                                                             PROSITE, PSO1186, FOR 2, INFNOWN 1
PROSITE, PSO0652, TNPR NGFR 1, 3.
PROSITE, PSS0050, TNPR_NGFR_2, 3.
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MEDLINE:21158384; PubMed=11261933;
                  InterPro, IPR000561; EGF-like.
InterPro, IPR001369; TWFR c6.
Pfam; PF00070; TWFF c6; 3.
                                                                                                                                                           1.95e-66
731.00
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85.52%
77.68%
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EMBL; U72344; AAB95089.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           430 AACTSTAAGAAAAGC 444
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                                                                                                                189
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          HSSP; P19438; 1EXT.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    74 AsnSerThrCysLeuProCysProSerAspThrPhoLeuThrArgAspAsnHlisPholys 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             162 ProdysLeuProdlyPheTyrIleArgGlyAsnAspCysThrSerdysProThrdlyPhe 181
"Genomic structure, expression, and chromosome mapping of the moune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ** - - CANTIGORITAGO TIGORITA PARA TRANSPARA MANANTA MASTAGA GALOT COLTEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleestemi,
                  homologue for the WSL-1 (DR3, Apo3, TRAMP, LARD, TR3, TNFRSF12)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   142 oPheSerCysValProCysGlyAlaThrThrProValHisGluAlaProThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     289 AGTGAAAACCTTTTGCAGTGCTTCAATTGCAGGCTGTGCGTGAATGGGA
                                                                                                                                                                                                                                                                                                                                             413 AA; 44453 MW; 69P21BB5D0DABABF CRC64;
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119
124
32
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      427 ---AGTAACTGTAAGAAAAGGCTGGAGGAAGTTGTGC 465
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CysThrAlaValCys 193
                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches.
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches:
Indels:
                                                                                                                                                                                    Pfam; PF00531; death; 1.
Pfam; PF00020; TNFR c6; 3.
SMART, SM00005; DEATH; 1.
SMART, SM00208; TNFR, 3.
PROSITE; PS50017; DEATH DOMAIN; 1.
PROSITE; PS01186; EGF 2; UNKNOWN 1.
PROSITE; PS00652; TNFR MGFR 1, UNKNOWN 1.
PROSITE; PS50050; TNFR MGFR 1, UNKNOWN 1.
PROSITE; PS50050; TNFR MGFR 1, UNKNOWN 1.
PROSITE; PS60050; TNFR MGFR 1, UNKNOWN 1.
PROSITE; PS60050; TNFR MGFR 1, UNKNOWN 1.
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Xenopus laevis (African clawed frog).
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                                                                EXBL. AF3192969; ART1256.1; -. HSSP, P25942, ICDF.
MGD; MGT:1934667; Thfref12.
InterPro; IPR0005489; Death.
InterPro; IPR000561; EGF-like.
InterPro; IPR001368; TNFR_G6.
                                                        mmunogenetics 53:59.63(2001).
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203.50
44.87%
32.69%
21.63%
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Submitted (FEB-1999) to the EMBL/GenBank/DDBJ databases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Xenopodinae, Xer
NCBI_TaxID±8355;
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PROSITE; PS00652; THER_NGER_1; UNDNOWN_3.
PSS6017, PS00050; THER_DOFF_2; 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ر تا منظمان
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                                                                                                                                     172
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                                                                                                                                                                                                                        457 AAGTTGTGCCTACCCCAG 474
                                                  σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            298 CTTTTCCAGTGCTTCAATTGCAGCCTCTGCCTCAATGGG---ACCGTGCACCTCTCCTGC 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 178 CICAGCIGCTCCAAATGCCGAAAGGAAATGGGTCAGGTGGGGGTCTCTTCTTGCACAGTG 237
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          n; PF00531; death; 1.
n; PF00020; TNFR C6; 4.
ET: SM00412; Cu_FIST; 1.
ET: SM000005; DEATH; 1.
NC; SM100005; TNFE, 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ThrHisAsnLysAsnThrValCysGlnLeuCysSerSerGlyPheTyrSerGluValLys
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                                                                                                                                GlyAspCysValProGln 177
                                                                                                                                                                                                                                                                                                               SerSerGluSerProCysLeuProCysArgThrGluCysLysGluThrGluValGlnIle 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGGAGAAAACAGAACACCGTGTGC---ACCTGCCATGCAGGTTTCTTTCTAAGA-----
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P07174; INGR.
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, a Novel P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-882-735-1 (1-483) x Q91ZM6 (1-433)
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01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last amoutation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INTERPRO; IPRO01368; TNFR_C6.

Efam; PRO0020; TNFR_C6; 4.

PROSITE; PS09552; TNFF_NGFP 1; UNKNOWN:

PROSITE; PS50050; TNFR_NGFR_2; 3.
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Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases
EMBL; AF420214; AALL6021.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Osburg B., Peiser C., Doemling D., Schomburg L., Voigt K., Bickel U., "TNF-receptors p60 and p80 are constitutively expressed by rat brain capillary endothelial cells and participate in TNF-alpha transport
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=SPRAGUE-DAWLEY;
Osburg B., Peiser C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=10116;
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                                                                  155 ThrSerSerThrAspValCysArgProHisArgIleCysSerIleLeuAlaIlePro 173
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                                                                                                                                                                                                         SerAsnGlyAsnValIleCysSerAlaCysAlaProGlyThrPhe-----SerAspThr 154
                                                                                                                                                                                                                                                                           GAGAAACAGAACACCGTGTGCACC---TGCCATGCAGGTTTCTTTCTAAGAGAAAACGAG 414
                                                                                                                                                                                                                                                                                                                                                 ArgGlnCysMetLysLeuSerLysCysGlyProGlyPheGlyValAlaArgSerArgThr 136
                                                                                                                                                                                                                                                                                                                                                                                                                       TTCCAGTGCTTCAATTGCAGCCTCTGCCTCAATGGG---ACCGTGCACCTCTCCTGCCAG 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ArgValCysAlaCysAsnAlaAspSerTyrCysAlaLeuLysLeuHisSerGlyAsnCys 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCGTGTGTGGCTGCAGGAAGAACCAGTAC-----CGGCATTATTGGAGTGAAAACCTT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CysAlaAlaGlyMetPheThrGlnValTrpAsnHisLeuHisThrCysLeuSerCysSer 78
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           166 CTCAGACACTGCCTCAGCTGCTCCAAATGCGAAAGGAAATGGGTCAGGTGGAGATCTCT 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90 GludysSerProSerAsnAsnCysGludysGludysLysGluGly-----TyrTyr 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               107 PheAsnLysLysTyrGluAlaCysTleLysHisLysGluCysProProGlyTyrGlyAla 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 328 --- CTCAA PAATACOTEA ACTOTECTIGGGASGAGAACAGAACACGGTGTGCAGG--- 381
                                                                                                                                                                                                            MEDLINE=20111091; PubMed-10642582;
Robe J., Goetz F.W.;
"A tumor necrosis factor decay receptor homologue is up-regulated in
the brook trout (Salvelinus fontinalis) ovary at the completion of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            53 - ArglysSerAspCysAlaGluCysProAsnGlyAlaTyrThrGluPheTrpAsnHis 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                72 IleserLysCysLeuArgCysSerMetCysAlaGlu-----AsnGlnValValLysGln 89
                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Actinopterygii; Neopterygii; Teleostei; Buteleostei; Profacanthopterygii; Salmoniformes; Salmonidae; Salvelinus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE 302 AA; 34037 MW; E44073477F0503DF CRC64;
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21
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24
               01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
                                                                                      Salvelinus fontinalis (Brook trout) (Brook char)
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Mismatches:
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InterPro; 1PR000461; BGP-like
InterPro; 1PR00148; TNFR_G6
Pfam; PF00020; TNFR_G6; 4
PROSTTE; PS01184; EGF_2; UNFXNOWN 1
PROSTTE; PS01184; EGF_2; UNFXNOWN 1
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                                                                                                                                                                                                                                                                                   ovulation.";
Biol. Reprod 62-420 426(2000)
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46.15$
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                                                                                                                                                         NCBI_TaxID=8038;
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Gallus gallus (Chicken).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostem).
Archosauria, Aves, Neognathae, Galliformes, Phasianidae, Phasianinae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                169 AGACACTGCCTCAGCTGCTCCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATGTTTTTT 72 H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   229 TGCACAGTGGACCGGGACACACASTGTGTGGCTGCAGGAAGGAAGCAGTAGCAGTATTATTATTAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 289 AGISAAAACCIITICCAGISCIICAAIIGCAGCTICIGGTICAAIGGGACCCTGACCTTC 34%
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    44 AspGluCysMetArgCysArgSerCysAspLysAlaLeuGlyLeuGluValValLyssAss: 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CyscysthribysCysLysArgGlyHisValLysSerIleAspCysProLysThrollnollu 25
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                                                                                                                                                                                                                              Submitted (AUG-2000) to the EMBL/GenBank/DDBJ databases.
EMBL, AF296875; AAG32243.1,
HSSP; 014763; 1D4V.
                                                                                                                                                                                                    Bridgham J.T., Johnson A.L.,
"Fas Expression and Regulation in Hen Granulosa Cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                           1 1 285 AA; 32431 MW; A9761960CCD79E6D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Last sequence update)
Last annotation update)
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Mismatches:
Indels:
                                                                           Fas ligand receptor soluble form (Fragment).
                                                                                                                                                                                                                                                                         InterPro; IPR000488; Death.
InterPro; IPR001368; TNFR_c6.
Pfam; PF00531; death; 1.
Pfam; PF00531; DEATH; 1.
SMART, SM00005; DEATH; 1.
PROSTE; PS50017; DEATH POMAIN; 1
PF0SITE; PS50055; TNFR_NGFR_1; UNHAOWN_1.
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 285 AA
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 PRT;
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182.50
46.36%
32.73%
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                             01-MAR-2001 (TrEMBLrel, 16, 01-MAR-2001 (TrEMBLrel, 16,
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 PRELIMINARY;
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                                                                                                                                                        NCBI_TaxID=9031;
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Q9DGH7
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01 - TÜN-1944
01 - TÜN-1944
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Etali, Lui: Teri: (Deklafizh) (Dekla Lunis).

Etali, Lui: Teri: (Deklafizh) (Dekla Lunis).

Actinopterygil, Neoptorygil, Teleostei; Ostariophysi; Cypriniformes;
                                 ULIONO
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PROCITE, PUCCESC, THEE MOEEL, THYNOWHLD.
PROSITE, PUCCESC, THEE MOEELC, D.
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Pfam; PF00020; TNFE_C6; 3.
SMART; SM00005; DEATH; 1.
SMART; SM00208; TNFR; 3.
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InterPro; 1PR001368; TNFR_C6
Pfam; PF00531; death; 1.
Pfam; PF00030; TNFR_C6; 3.
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HSSP; P19438; 1EXT
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NCBI_TaxID=7955;
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1.0
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                                                                                       UysUysOysOvrArgOysUysOluAspOluOlumbroluUysOstOys 151
                                                                                                                                                                                                                                                                    ThrGlnAsnThrArgCysLysCysArg .
                                                                                                                                                                                                                                                                                                                                                                                             ValoyeAluFreo, eGluFheAspThrTyrThrGluHisAspHisGlyLeuLeuLysCys
                                                                                                                     STOTE CTUIAUTAACTUTAAGAAAAGOCTUJAGTSCAOGAAGTTGTGO 465
                                                                                                                                                                                <u>ĠŔĠŔŔŔĊŔĠŔŔĊ</u>ŔĊŊĠŦĠŦĠĹŔĊĊŦĠĊĊĂŦĠĊŔĠĠŦŦŦĊŦŦŤĊŦAŔĠŔĠŔŔŔŔĊĠŔĠĬĠŦ
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                                                                                                                                                                                                                                                                                                                                   TleSerTypAcpLysTysArg
                                                                                                                                                                                                                                                                                                                                                              CTCROSTELETODAAATEGGGAAAAG AAATGGGTCAGGTGJGAGATGTCTTCTTGGACAGTG 237
                                                                                                                                                                                                                                                                                                                                                                                                                           CACTO A SOSA STOTOASA SOSSITO UTTUA COSCTTUAGAAAACCACCTQAGACACTGG 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuAsnCysFtoAlaClyThrTyrValLysLysAlaCysAlaAlaAlaAlaGluLysGly 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCAARTERICAFAAAGGAARTTATTGTAFAATGARTGTCCAGGCCCGGGGGCAGGATACG 117
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                                                                                                                                                  ProAspGlnAlaCys
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JANHALLE
                              PPELIMINAPY;
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179.50
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06, Created)

    TieAspülnGluThrTieGluLysCysThrSer 112

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Alignment Scores: Fred. Mo..
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Logarev V.N., Farsons J.M., Roight J.C., Panus J.F., Ray C.A.,
Buller R.M.L., Pickup D.J., Esposito J.J.;
"A third distinct tumor necrosis factor receptor of orthopoxviruses.",
Proc Natl Acad Sci. U.S.A. 95:3786-3791(1998).
                                                                                              SMART; SM00208; TNFR; 2.
PKOSITE; PSC0652; TNFR_NGFR
PROSITE; PS50050; TNFR_NGFR
                                                                                                                                                                                                  Dietrich F.S., Ray C.A., Sharma A.D., Allen A., Pickup Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases EMBL; U87234; AAB94344.1, -.
                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                         Hu F.Q., Smith C.A., Pickup D.J.; "Cowpox virus contains two copies of an early gene encoding a soluble secreted form of the type II TNF receptor.", Virology 204:343-356(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=83117629; PubMed=6961398; Pickup D U , Bastia D , Stone H.O , Joklik W K.; "Sequence of terminal regions of compox virus Direpeated and unique sequence of ements.", proc. Natl. Acad. Sci. U.S.A. 79:7112:7116(1982)
                                                                                                                                           InterPro; IPR001368; TNFR_c6.
Pfam; PF00020; TNFR_c6; 2.
                                                                                                                                                                                     EMBL; AF482758; AAM13659.1; -.
                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                        Submitted (AUG-1993) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                       Pickup D.J.
                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=94378510; PubMed=8091665;
Hu F.Q., Smith C.A., Pickup D.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-BRIGHTON RED,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Transcription of the terminal loop region of vaccinia virus DNA is initiated from the telemere sequences directing DNA resolution.", Virology 181:716-720(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-BRIGHTON RED;
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                                                                       SEQUENCE
                                                                                                                                                                                                                                              STRAIN=BRIGHTON RED;
                                                                                                                                                                                                                                                                                                                                                                                                                                                SECTIENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=91196263;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Virology 175:69-80(1990)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-90177240; PubMed=2309453;
Parsons B.L., Pickup D.J.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        infection
                                                                                                                                                                         014763; 1D0G
                                                                       320
                                                                       AA;
                                                                                                                TNFR NGFR 1;
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1.63e (
176.50
42.38%
                                                                       35234 MW;
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(V211).
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310
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22
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Percent Similarity:

09

Length. Matches: Conservative:

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160 AACCACCTCACACACACACACACACACACACACACAAATGGGGGAAAGGAAATGGGTCAGGTG 216
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                                                                                                                                                                                                                                                                                                                                              40 AATAATTCGATTTGCTGTACCAAGTGCCACAAAGGAACCTACTTGTACAATGACTGTCCA 99
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Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             77 AsnHisIleProThrCysLeuSerCysArgGlyLysCys----SerSerAsnHisVal
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Powell B.E., Wicker L.S., Pererson L.B., Todd J.A., "Allelig variation of the type 2 tumor necrosis factor receptor
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01 NOV-1996 (TrEMRLrel. 01, Last sequence update)
01 JUNY-2092 (TrEMRLrel. 21, Last annotation update)
Murine tumour nerrosis factor receptor 2 protein (Fragment).
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6
      Mismatches:
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                                                            Indels:
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                                                                                                                                                                                                                                      US 09:882-735-1 (1-483) x 057079 (1-320)
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InterPro; IPR001168; INFR_c6.
Pfam; PF00020; INFR_c6; 4.
SMART; SM00208; INFR, 4.
PROSITE; PS00652; INFR_NGFR_1; 2.
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EMBL, X76401, CAAS3981.1, -.
HSSP, P19438; INCF.
                                                                  18.76%
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Eukaryota; Metazoa; Chordata; Craniata; Verrebrata; Euteleostemi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianidae;
Gallus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120 SerCysArgGinCysMetArgLeuSerLysCysGlyProGlyPheGlyValAlaSerSer 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   352 TGCCAGGAGAAAAAGAGAAGACACTTGTGC---ACCTGCCATGCAGGTTTCTTTCTAAGAGAAA 408
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                                                                                                                                                                                                                                                                                                                                                                                              64 CysGlualaSerMetTyrThrGlnValTrpAsnGlnPheArgThrCysLeuSerCysSer 83
                                                                                                                                                                                                                                                               10 TGTCCCCAAGGAAATATATCCACCTCAAAATAATTCGATTTGCTGTACCAACGCCAC
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Last annotation update)
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Mismatches:
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                                                                                                                                            Length:
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PROSITE; PS50050, TWFR_MGFR_2, 3.
                                                                                                     48686 MW;
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Bridgham J.T., Johnson A.L.;
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Pred. No..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0.9
MEDITIME 195120462, FullMode 95(8042), MEDITIME 195120462, FullMode P. F., Tottmenin A.V., Perrov N.A., Shochellando I., Outcrov V.V., Kotwal G.U.;
"Species-specific differences in genome organization of cowpox, stallpox, and variable viruses.",
%**Shocked A.V. A. (1974), M. A. (1974), M. (1974),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-AUG-1998 (TrEMBLrel.
01-AUG-1998 (TrEMBLrel
01 TUN-0000 (TrEMELrel
                                                                                                                                                                                                                                                                                                                                         Cowpex virus (CPV).
Viruses; doDMA viruses,
Orthopoxvirus.
                                                                                                                                                                                                                       STRAIN-GRI-90;
                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     K2R protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SMART; SM00005; DEATH; 1. SMART, SM00005; THER, 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SERVENCE SER AA; SEE75 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro, 1PR.0004**, Death.
InterPro, 1PR.01368, TMFF_pr
Pfam, Pro0531; death; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBE; ARIUGESTA; AACOULTALIT;
HOSE; C147C3; 1D4V.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Fas Expression and Regulation in Hen Granulosa Cells.",
Submitted (AUG-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13
13
Q1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  349 TOSTBOCAGGAGAAACAGAACACCGTGTGC 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            c 'YanyambruyanyabyaArgalyHisValLyaSerIleAsprys
                                                                                                                                                                                                                                                                                                                  TaxID-10243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GluCysThiSeiThiSeiAspThiValCys III
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUACACTOCCICASCISCICCAAATSCISGAAAAGGAAAIGGGICAGGTGGAGATCTCTTCT 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             THETTELACTAGETHICACAAGHAACCTACTTHITACAATBACTGTCCAGBCCCGGBGBCAG 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOCALAGIOSACIOSSACACISTOTOTOTOSCIPÇASSAASAACASTACISSCATTATISS 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AspOluCysMetArgCysArgSerCysAspTysAlaTesOlyTesOlsValValValDysAsn
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATACGGACTGCAGGGAGTGTGAGAGGGGC---TCCTTCACCGCTTCAGAAAAACCACCTC 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                serserArgCysGluHisCysGluSerCysThrValCysGluAsnGlyGlnIleGluLys 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ASTORAMASCITTICCASTOCITCAATTSCAGCCICTSCCICAATSGGACCGIGCACCIC 348
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#ESSOCIT; DEATH DOMAIN; 1.

#ESSOCIL; THER NOTE: UNKNOWN_1.

#PUSOOSO, THER NOTE: 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1, death, 1.
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175.50
45.45%
32.73%
18.65%
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07, Last sequence update)
51, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                on
                                                                                                                                                                                                                                                                                                                                                                             RNA stage;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches:
Indels:
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Matches:
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  322 AA
                                                                                                                                                                                                                                                                                                                                                                             Poxviridae; Chordopoxvirinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -- FroLysThr 23
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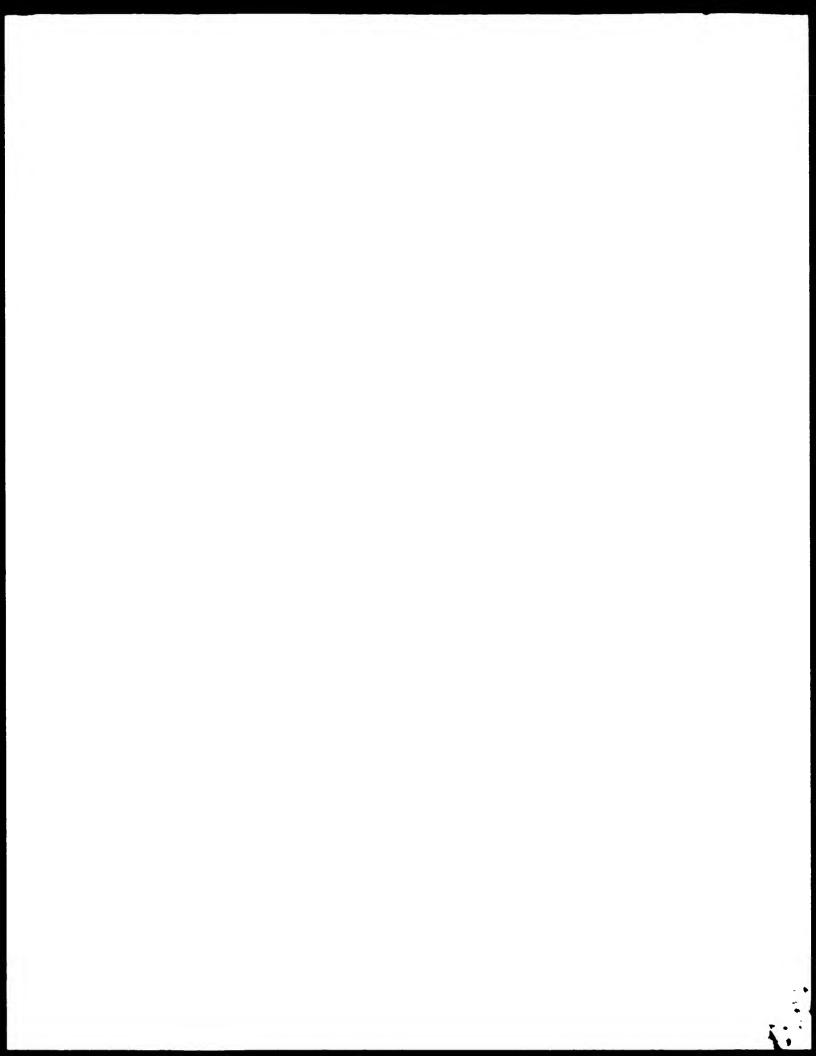
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DT RRARANCE OCCUPITATION OCCUPI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Дb
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No..
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity
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InterPro; IPR001368; TNFR_C6.
Piam; FF00020; TNFR_C6; 2:
SMART; SM00208; TNFR; 2:
SMART; SM00208; TNFR; 2:
PPOSITE; PS00652; TNFP_NGFR_D; 2:
PPOSITE; FS90056; TNFP_NGFR_D; 2:
SEQUENCE 322 AA; 35412 MW; 7:
                    STRAIN=MUNICH-SF(SILVER FOX);
MEDLINE-98188282, PubMed=9520445;
MEDLINE-98188282, PubMed=9520445;
Loparev V W, Parsons J M, Knight J.C., Panus J F,
Buller R.M.L., Pickup D.J., Esposito J J;
"A third distinct tumor necrosis factor receptor of
Pioc Natl Acad Scil U S.A 95.3786-3791(1998).
EMBL; U8788); AAB94350.1, -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUN-1998 (TREMBLrel 06, Created)
01-JUN-1998 (TREMBLrel 06, Last sequence update)
v1-JUN-1998 (TREMBLrel 21, Last sanctation update)
Tumor necrosis factor receptor II homolog.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    057092
057092;
HSSP; P19438; 1EXT.
                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=12643;
                                                                                                                                                                                                                                                                                                                                                                                                                            Viruses; dsDNA viruses, Orthopoxvirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ectromelia virus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    256 GGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTTTTCCAGTGCTTCAAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCACCTGCCATGCAGGTTTCTTTCTA-----AGAGAAAACCAGTGTGTCTCCTGT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GECTECTTCACCECTTCAGAAAACCACCTCAGACACTGCCTCAGCTGC---TCCAAATGC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyThrAspTyrAsnSerAsnSerAsnAsnLeuCysCysLysGlnCysAspProGlyMet 52
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerSerAsnGlnValGluThrLysSerCysSerAsnThrGlnAspArgGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             RNA stage;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     774549278D156A9D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LINKNOWN
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Conservative:
Mismatches:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            316 AA
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                                                                                                                                                                              Panus J F , Pay C
                                                                                                         orthopoxviruses.";
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STRAIN=MUNICH-MP3;
MEDLINES98189282; PubMed=9520445;
Loparev V.N., Parsons J M., Knight J C., Panus J.F., Pay C.A.,
Ruller R.M.L., Pickup D.J., Esposito J.J.;
A third distinct tumor necrosis factor receptor of orthopoxviruses.";
Proc. Natl. Acad. Sci. U.S.A. 95:3786-3791(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           91 GluThrLysSerCysSerAsnThrGlnAspArgValCysValCysAlaSerGlyTyrTyr 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               217 GAGATETCTTGCACAGAGGGGGAGEGGTGTGTGGGCTGCAGGAAGAAGAACTAC 274
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            126 Thr ... ... LysCysGlySerGlyTyr 132
                                                                                                                                                                                                                                                                                                                                                                                                   160 AACCACTTCAGACACTGCCTCAGCTGC---TCCAAATGCCGAAAGGAAATGGGTCAGGTG 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    277 (GGGATTATTGGAGTGAAAAACGTTTTGCAGTGGTTGAATTGGAGGGTGTGTAAATGGA
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                                                                                                                                                                                                                                                                                                                                                                34 SerAsnAsnLeuCysCysLysGlnCysAsnProGlyMetTyrMetThrHisSerCys--- 52
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                40 AATAATTCGATTTGCTGTACCAAGTGCCAGAAAGGAACCTAGTTGTAGAATGACTGTGCA 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Viruses; dsDNA viruses, no RNA stage; Poxviridae; Chordopoxvirinae;
                                                                                                             GECTENCE 316 AA, 34660 MW, 443CC118SB4E12A9 CRC64
                                                                                                                                                                                    01-JUN-1998 (TrEMBLrel. 06, Created)
01-JUN-1998 (TrEMBLrel. 06, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Dumor necrosis factor receptor II homolog.
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                                                                                                                                                                 Length:
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                                                                                                                                                                                                                                                                                          US 09 882-735-1 (1-483) x O57092 (1-316)
InterPro; IPR001368; TNFR_c6.
Ptam; PF00020; TNFP_c6; 2
SMART; SM00708; TNFP_t7
PPOSITE; PS00062; TNFP_NGFP_1; 2
PROSITE; PS50050; TNFP_NGFR_2; 2.
                                                                                                                                                                5.5e-09
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42.38%
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Search completed: January 6, 2003, 03:43:50

Job time : 67.5 secs

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100 GGCCCGGGGGGGATACGGACTGCAEEGACTCTTAAAAEEGTTTTTT AFEGTTCAAAAA 159
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       115 CysGluPheGluGlySerAsn-------GlyCysArgLeuCysValProstln 129
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     77 AsnHisSerProAlaCysLeuSerCysArgGlyLysCys---- SerSerAsnGlnVal 94
                                                                                                                                                                                                                                                                                                                                                                          57 ASDTHRTHRSERASDTHRLYSCYSASPLYSCYSPROASPASPTHRPheThrS+1110Pro 76
                                                                                                                                                                                                                                                                                                                                                                                                                 38 SerAshAsnLeuCysCysLysGlnCysAsnProGlyMetTyrMetThrHisSerCys
                                                                                                                        CHUALBUALFS3F5A5 CRC64
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Mismatches:
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               Pfam; PPG0020, TNPP c6, 2.
SMART; SMO0204; TNPF, 2.
PPGSTTE; PSG0652; TNPP NGPP 1; 2.
PPGSTTE; PSG0650; TNPP NGFP 2; 2.
                                                                                                      Receptor.
SEQUENCE 320 AA; 35134 MW;
InterPro; IPR001368; TNFR c6.
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            181 AGCTGCTCCAAATGCAGAAAGGAAATGGGTCAGGTGGAGATCTCTTGCACAGTGGAC
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100 0%; Pred No. 5 9e-141;
tive 0; Mismatches 0; Indels 0;
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Campbell, P. K., Jameson, B. A. and Chappel, S. C. DNA encoding a hybrid heterodimeric protein Patent: US 6194177 A. 27. FEB. 2001;
Location/Qualifiers
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1 (Dases 1 to 133)
Hauptmann,R., Himmler,A., Maurer-Fogy,I. and Stratowa,C.
Parerespecy, TWF-binding protein and DNA coding therefor Parent: EP 039348-A 3 24 OCT-1990;
BOEHRINGER INGELHEIM INTERNATIONAL G.M.B.H
                                                                                                                                              1331 bp DNA linear PAT 03 UH. 19
H.sapiens mRNA for TNF-binding polypeptide from patent EP0393438.
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100.0%; Pred. No. 5.9e-141;
Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
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-407 c 343 q
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                 Human tumor necrosis factor receptor(TNF) mRNA, complete M60275 M37764
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                                                 CGGGACACCGTGTGTGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT
                                                                                 AGCTGCTCCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATCTCTTCTTGCACAGTGGAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           expression of recombinant soluble TNF-binding protein Proc. Natl. Acad. Sci. U.S.A. 87 (19), 7380-7384 (1990)
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SKCPFPMGVPTISCTTCTTUPPDTVCGCPFNQYRHYWSENI-PQCPNCSLCLNGTVHLE.CQC
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Feldmann, M., Gray, P.W., Turner, M.J.C. and Bronnan, F.M.
TNF.alpha. receptor-derived binding protein
Patent: US 5633145-A 24 27-MAY-1997;
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Schall, T.J., Lewis, M., Koller, K.J., Lee, A.L., Pice, G.C., Wong, G. Gatanaga, T., Granger, G.A., Lentr, F., Rudo, H., Kuhi, W.J. and Goeddel, C.Y.
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                                                                                                                                                                  483;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Schmitted (24-007-2001) Takan Isogai, Helix Research Institute, Genomics Laboratory, 1532-3 Yana, Kisarazu, Chika 13-0311, Japan (E-mail:genomics@hricojp, Tel-81-438-52-3975, Fax:81-438-52-3986) MEDO human cDNA sequencing project supported by Ministry of Economy, Trade and Industry of Japan, cDNA full insert sequencing: Research Association for Biotechnology (RAB), CDNA library construction: Helix Research Institute (HRI) (supported by Japan Key Technology Center etc.); 5'- & 3'-end one pass sequencing: RAB, HRI, and Biotechnology Center, National Institute of Technology and constructions of the construction of the con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ninomiya,K., Wagatsuma,M., Kanda,K., Kondo,H., Yokoi,T., Kodaira,H., Furuya,T., Takahashi,M., Kikkawa,E., Cmura,Y., Abe,P. Kamihara,K., Katsuta,M., Sato,K., Tarikawa,M., Yumazaki,M., Sugiyama,T., Irie,R., Otsuki,T., Sato,H., Wakamatsu,A., Ishii,S. Yamamoto,J., Isono,Y., Kawai-Hio,Y., Saito,K., Nishikawa,T., Kimura,K., Yamashita,H., Matsuo,K., Nakamura,Y., Sekine,M., Kikuchi,H., Murakawa,K., Kanehori,K., Takahashi-Fujii,A., Oshima,A., Sugiyama,A., Kawakami,B., Suzuki,Y., Sujaro,S., Nagahari,K., Masuho,Y., Nagai,K. and Isogai,T.
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Homo sagions cDNA FLJ30949 fis, clone NTCNGL001220, highly similar
to TUMOR NECROSIS FACTOR RECEPTOR 1 PRECUPSOR
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Isogai,T., Otsuki,T. and Sugiyama,T.
Direct Submission
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Nagahari, K., Masuho, Y., Nagai, K. ar
NEDO human cDNA sequencing project
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oligo capping, fis (full insert sequence).
Home sapisns tongue cDNA to mRNA, clone_lib:NTONG2
clone.NTCNG2001220.
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                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                       /tissue_type= ....
/clone_lib="NTONG2"
/note="cloning vector: pME18SFL3"
/note="cloning vector: pME18SFL3"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Homo sapiens"
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                                                                                                                                                                                               100.0%; Score 483; DB 9; I
100.0%; Pred. No. 6.2e-141;
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KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPLVU
FFGLCLLSILFIGLWYRYQPWKSKLYSIVCGKSTPRKEGELEGTTTKPLAPNESFSPT
PGTPTLGFESPVPSSTFTSSSTYTPGDCPNFAAPREVAPPYGAADPLTATALLASDPI
PNPLCKWEDSAHKPGSLDTDDPATTYDCVPVPPLPWFEFVWRLGLSCHFIPFLELON
GRCLREAQYSMLATWRRRTPPPFEATURILGPVI.PDMDILJGCLEDIEEEALCGPAALPPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /translation="MGLSTVPDLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVC
PQGRYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCPECESGSFTASENHLEHCLSC
SKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE
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CDNA for (55kD TNF-BP) tumor necrosis factor binding protein from
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                                                                                                            443 TGCAGGGAGTGTGAGAGGGGGTCCTTCACGGCTTCAGAAAACCACCTCAGACACTGCCTC 502
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                 181 AGCTGCTCCAAATGCGAAAAGAAAATGGGTGAGGTGGAGATCTTCTTGCACAGTGGAC
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F. HOFFMANN-LA ROCHE AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /product="55 kD TNF-BP"
/protein_id="CAA01805.1"
/db_xref="G1:904969"
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187. .1554
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/transl_table=11
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Brockhaus, M., Dembic, Z.
Schlaeger, E.J.
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Tabuchi,H. and Lesslauer,W.
Molecular cloning and expression of the human 55 kd tumor necrosis
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                                                                                                                               Eukaryota, Metazoa, Chordata, Craniata, Vertebrata; Euteleostomi, Mammalia, Eutheria; Primates, Catarrhini, Hominidae, Homo. 1 (bases 1 to 212)
Himmler, A., Maurer-Fogy, I., Kronke, M., Scheurich, P., Pfizermaier, K., Lantz, M., Olssen, I., Hauptmann, R., Stiatowa, C. and
                                                                                                                                                                                                                                                                                                                                                        Human tumer necrosis factor receptor (TMF receptor) mFNA.
            91090841
                                 Molecular cloning and expression of human and rat tumor necrosis factor receptor chain (b0) and its soluble derivative, tumor necrosis factor-binding protein DNA Cell Biol. 9 (10), 705-715 (1990)
                                                                                                                                                                                                                                     Homo sapiens
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SKCPKEMGGVEISSCTVDRDTVCGCRKNOYRHYWSENLFOCFNCSLCLNGTVHLSCOE
KONTVCTCHAGFFLBENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLDPLVI
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PQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCLSC
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                                                                                                                                             /produčt-"tumor necrosis factor receptor"
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                                                                                                                                                                                                                                                                                                                                                                                                               product="tumor_necrosis factor receptor"
632 c 589 q 456 t
               1. .2112
/organism="Homo sapiens"
                                              /db xref="taxon:9606"
                                                                               'qene="TNF receptor"
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Gearch completed January 6, 2003, A3-02-22 Job time : 2791 secs



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GenCore version 5.1.3
Copyright (c) 1993 - 2003 Compugen Ltd.
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OM nucleic - nucleic search, using sw model

Run on:

January 5, 2003, 22-50:57 ; Search time 263 Seconds (without alignments) 4135.799 Million cell updates/sec

US - 09 - 882 - 735 - 1 Title: Perfect score:

gantadaactgagaat 483 1 gatagtgtgtgtcnncaagg 483 Sequence:

IPENTITY_NUC Gapop 10_0 , Gapext 1.0 Scoring table;

2185239 seqs, 1125999159 residues Searched:

Minimum DB seq length: 0 Maximum DR seq length: 200000000

Total number of hits satisfying chosen parameters:

4370478

Post processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

					07711100	
		op.				
Result		Query				
No.	Score	Match	Match Length DR	PR	ID	Description
	483	100.0	483	19	AAV41548	Human soluble tumo
2	483	100.0		19	AAV19801	Soluble tumour nec
~	483	100.0		20	AAV81732	Tumour necrosis in
4	483	100.0		22	AAC83945	Human 30 kDa TNF i
S	483	100.0	1301	18	AAT94022	CONA for TBP (20-19
9	483	1000	_	11	AAGRERE	Plasmid Tumour Nec
.1	483	100.0		14	AA049932	Lambda-derived TNF
Œ	483	100 0		2.1	AAA95105	Human TNFF1 coding
6	483	100.0	1478	20	AAX58150	CadC-fusion polype

TNF alpha binding Encodes TNF alpha 30kD TNF inhibator Buran ao kha TNF i Encodes human 45kD Buran i amoni 1907.	Human TWEPF assact Human CONA differe Gree #12-80 nred to Human tumoni necto Human tumoni necto Human tumoni necto	DHEP/intron (WTrass Vector pribas forth Haman Tamour Nector Type I TNE receptor 1555 Tumour nectors	Encodes truncated CDNA for THPL.Co 19 CDNA for THPL.Co 16 MAIE fusion plasm Encodes truncated TNF selectoking pt Encodes truncated	Target canine tone Thumside TNEE, s Thumsided STNEE, s Thumsided STNEE, s Thumsided STNEE, s Rat Sequence of flo Nucleotide sequence Rat Thumsided STNEE, s Thumsided STNEE, s Thumsided STNEE, s Thumsided STNEE, s
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ALIGNMENTS

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                                                                                                Human, tumour necrosis factor, TNF, TNF receptor type 1, inflammatory disease, leukaemia, TNF binding profein, anti inflammatory drug, methotrexatess, 88.
                                                                              Human soluble tumour necrosis factor receptor type 1.
                                                                                                                                                            Location/Qualifiers
                   AAV41548 standard; cDNA; 483 BP.
                                                                                                                                                                                                                                                                      97US-0052023.
96US-0032587.
97US-0036355.
97US-0039315.
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                                                          28-SEP-1998 (first entry)
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06 DEC 1996;
23 JAN-1997;
07 FEB-1997;
                                                                                                                                          Homo sapiens.
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                                                                                                                                                                                                                                                    08-DEC-1997;
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                                       AAV41548;
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RESULT 1
          AAV41548
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tumour necrosis factor binding protein, autoimmune disease; arthritis;

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AAV19801
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Matches 483
Soluble tumour necrosis factor receptor; sTNFR; TNF-mediated disease;
                                Soluble tumour necrosis factor receptor coding sequence.
                                                                  29-JUN-1998
                                                                                                                                  AAV19801 standard; cDNA; 483 BP
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by administering tumour necrosis factor binding protein and at least
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               binding proteins (TNBP) are used to treat any TNF-mediated disease, eacer, arthritis, adult respiratory distress syndrome, cachexia/anorexia, cancer, chronic fatigue syndrome, graft rejection, Alzheimer's disease and other autoimmune diseases. Cells transformed with a vector containing DNA encoding the protein may be used for production of recombinant sTNFR, which may also be used for measuring the amount of sTNFR in samples and to raise antibodies against sTNFR. TNBF may also be used in preparation of therapeutic compositions for treating the above diseases. The sTNFR proteins are well suited to large scale production (since they lack the deamidation site in region 111-126, so are more stable in vivo); contain fewer disulphide bonds and fewer epitopes, making them less antigenic than full-length proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This sequence encodes human soluble tumour necrosis factor receptor (sTNFR). The protein was used to make the truncated STNFR proteins of the invention. The truncated sTNFR proteins and tumour necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 483 BP; 130 A; 124 C; 123 G; 106 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Fig 1; 205pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Truncated and soluble forms of tumour necrosis factor receptor useful for treating diseases involving factor, e.g. arthritis adult respiratory distress syndrome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                adult respiratory distress syndrome; cachexia/anorexia; cancer; therapy; chronic fatigue syndrome; graft rejection; Alzheimer's disease; TNBP; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (AMGE-) AMGEN INC
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                   CGGGACACCGTGTGTGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT
CGGGACACCGTGTGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT
                                                                                              AAGTGCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCAGGATACGGAC
                                                                                                                                                                                                                                                               AAGTGCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCAGGATACGGAC 120
                                                                                                                                                                                                                                                                                                    GATAGTGTGTCCCCCAAGGAAAA: ATATCCACCCTCAAAATAATTCGATTTGCTG1: ACC
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                                                                        AGCTGCTCCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATCTCTTCTTGCACAGTGGAC
                                                                                                                                                 TGCAGGGAGTGTGAGAGCGGCTCCTTCACCGCTTCAGAAAACCACCTCAGACACTGCCTC
                                                                                                                                                                                    TGCAGGGAGTGTGAGAGCGGCTCCTTCACCGCTTCAGAAAACCACCTCAGACACTGCCTC
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                                                                                                                                                                                                                                                                                                                                                                                               Similarity
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96US-0032534.
97US-0037737.
97US-0039314.
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                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 483; DB 19; 100.0%; Pred. No. 9.4e-141;
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The present invention describes a chimeric polypeptide (A1), comprising an esteoprotegerin (OPG) dimerisation domain fused to a heterologous amino acid sequence. Also described are: (1) a multimer polypeptide comprising covalently associated A1 monomers; (2) an isolated nucleic acid encoding A1, (3) an expression vector comprising the nucleic acid sequence; and (4) a host cell transformed or transfected with the expression vector so that the nucleic acid is expressible. The products from the present invention are useful to treat a variety of disorders including those related to receptor binding. Compositions comprising tumour necrosis factor (TNF)/OPG and TNF receptor (TNFR)/OPG chimeras
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            are used to treat TNF and TNFR-mediated disorders such as inflammation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Tumour necrosis factor receptor 1; TNFR-1; inhibitor; osteoprotegerin; OPG; chimeric; fusion; dimerisation domain; autoimmune disease;
TCTGFAGTAACTSFAASAAAAGCTGGAGTGCACAAGTTGFGCCTACCCCAGATTGAG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        autoimmune diseases and disorders related to excessive apoptosis. The chimeras are also useful for detecting molecules which interact with
                                                                                                                                                    fused heterologous sequences to identify potential new receptors and
                                                                                                                           New chimeric osteoprotegerin polypeptides - contain the osteoprotegerin dimerisation domain and a heterologous sequence, useful to treat TNF and TNFR-mediated disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tumour necrosis inhibitor 30 kDa encoding cDNA.
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                                                                                                                                                                                                                                                       SAAMAS ....
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1999-034661/03.
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ligands. The present sequence encodes the TNF inhibitor 30 kPa protein
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                                                                              AAGTGCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCGGGGCAGGATACCGAC
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                                                                                                                                                                                                                                                                                       TNF inhibitor; antiinflammatory; Tumour Necrosis Factor; interleakin;
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                                                                                                                                                                                  121 TGCAGGGAGTGTGAGAGGGCTTCTTCACGGTTGAGAAAACGAGGTGAGACACTGCT
                                                                                                                                                                                                                                             CGGGACACCGTGTGTGCTGCAGGAAGAACCAGTAGTGGCATTATTGGAGTGAAAAAATT
                                      100.0%; Score 483; DB 20; Length 483; 100.0%; Pred. No. 9.4e-141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IL-1; inflammatory disease; degenerative disease; human; ss.
                                                          Indels
                    Sequence 483 BP; 130 A; 124 C; 123 G; 100 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human 30 kDa TNF inhibitor coding sequence #1.
                                                           0, Mismatches
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                                               100.08;
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89US 0450329.
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                                                            Matches 483; Conservative
                                                  Similarity
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Best Local Sim:
Matches 483;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to Tumour Necrosis Factor (TNF) inhibitors (see AAB37676 and AAB37685), which have TNF inhibitory activity. The novel TNF inhibitors of the present invention are useful as therapeutic agents for inhibiting the activity of TNF and interleukin (IL-1), and for treating inflammatory and degenerative diseases mediated by TNF. The present coverage of the content of the 
                       19 MAR-1998
                                                             AAT94022;
                                                                                                   AAT94022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 483 BP; 130 A; 124 C; 123 G; 106 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel 30 kDa tumor necrosis factor inhibitor analog comprising a non native cysteine residue cross-linked with polyethylene glycol, useful for treating inflammatory and degenerative diseases mediated by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       present sequence is the coding sequence for the 30 kDa TNF inhibitor The 30 kDa TNF inhibitor can inhibit TNF alpha.
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                                                                                                                                                                                                       AAT 483
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                                                                                                     standard;
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                       (first entry)
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                                                                                                     CDNA;
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Pred. No 9 4e-141;
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A novel fusion protein comprises 2 dimer forming co-expressed amino acid sequences, each consisting of a homodimeric or heterodimeric receptor chain or ligand, with ligand-receptor binding activity, bound directly or via a peptide linker to a subunit of a heterodimeric protein hormone capable of forming a heterodimer with the hormone's other subunits. The fusion protein, e.g. the thrombopoietin (TPO)/human chorionic gonadotrophin-beta subunit (hCG-beta) fusion protein encoded by the present sequence, significantly increases the biological activity of the hormone component, reducing the requirement for hormone itself and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hybrid dimeric protein comprising two co-expressed units - ebased on receptor or ligand and a subunit of a heterodimeric hormone, especially FSH, for inducing follicular maturation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1997-425036/39.
P-PSDB; AAW33360.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1301 BP; 269 A; 413 C; 351 G; 268 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      number of injections needed.
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TTCCAGTGCTTCAATTGCAGCCTCTGCCTCAATGGGACCGTGCACCTCTCCTGCCAGGAG
                                                TTCCAGTGCTTCAATTGCAGCCTCTGCCTCAATGGGACCGTGCACCTCTCCTGCCAGGAG
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                                                                                                                                         CGGGACACCGTGTGTGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAAACCTT
                                                                                                                                                                                                        CGGGACACCGTGTGTGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT
                                                                                                                                                                                                                                                                                   AGCTGCTCCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATCTCTTCTTGCACAGTGGAC
                                                                                                                                                                                                                                                                                                                                                      AGCTGCTCCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATCTCTTCTTGCACAGTGGAC
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The resulting 0.75 kb DNA fragment was inserted into pT7/T3 alpha-19 (RRL) cut with the same enzymes to recover pTNF-BP. This was cut with BamHI and ECORI.

WHIN BamHI and ECORI, and the recovered fragment inserted into See also AAQ06282-Q06283.
361 AAACAGAACAACATGTGAACAACTGGGAGGTTTGTTTAAAGAAAAAAGGAGTGTGTG 420
                                                                           705 AAACAGAACACCTGTGTGACCTGCCAGGTGTTTCTTTCTAAAGAGAAAAGGGGGGGTGTC
                                                                                                                                                                                                                                                                                                                             Plasmid Tumour Necrosis Factor-Binding Protein 15 cDNA insert.
                                                                                                                                                                                                                                                                                                                                                          Tumour necrosis factor binding protein; TNF-BP; TNF-receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA encoding TNF binding protein and TNF- receptor - used in timour tieatment and to understand mechanismsm to TNF action
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1334 BP; 299 A; 409 C; 342 G; 284 T; 0 other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Fig 1(1-3); 51pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
213..1325
                                                                                                                                                                                                                                  AAQ06282 standard; DNA; 1334 BP.
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Human, tumour necrosis factor receptor, TNF-R; interleukin l receptor, IL-IR; fusion protein, linker, TNF; IL-1; cachexia; cerobral malatia; rheumatoid arthritis; diabetes, multiple solerosis, septic shork; pulmonary fibrosis; silicosis; allograft, xenograft; rejection; graft verses host disease; sepsis; inflammation; allergy;
                                                                                                                                                                                                                                                  333 GATAGTOSTOCCCANUSAAATATATOTACOTCAAAATAATAGGATTTGCTGTACC 392
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                                                                                                                                                                              361 AAACAGAACACCGTGTGCACCTGCCATGCAGGTTTCTTTTCTTAAGAAAAAACGACTGTGTGT (A20
1 GATAGEGEGEGCCCAAGGAAAATATATOONOOFCAAAATAATTOOATTI
                                                                                                                                                   CGGGACACCGTGTGTGCAGCTGCAGAACCCAGTACCCGCCATTATTGGAGTGAAAAA
                                                                                                                                                                                                                                                                                                                                                  AAQ49932 standard, cDNA to mRNA, 1368 BP.
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/product= hTNF-R
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121..1363
/*tag= c
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                                                                                                                                                                                                                                                                                                                                                                                                      Lambda-derived TNF-R cDNA.
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                              The linker may comprise 5-100 amino acids selected from Gly, Asp, Ser, Thr and Ala. These linkers separate the individual moeities by such a distance that each component of the fusion protien is capable of fooding into the secondary or textiary structure required for its biological activity. These fusion proteins may be used in therapy, disjuisis and assays for inditions mediated by TNF or IL-1, particularly in conditions in which both TNF and IL-1 play a causitive role. They may be used to treat cachexia, rheumatoid arthritis, diabetes, multiple sclerosis, pulmonary fibrosis and silicosis, cerebral malaria, allegisfi and xenograft rejection in graft verses but illeads, refs., Septic sh.28, inflammation, allergies and autonomouse dysfunctions.
                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1368 BF; 292 A; 424 C; 376 C; 276 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The sequences given in AAQ49931-32 encode human tumour necrosis factor receptor (TNF-P) and the sequences in AAQ4993-34 encode human interleukin 1 receptor (IL-IR). These sequences were used in the production of a fusion protein which conformed to one of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclusure: Page 57 59; 85pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New fusion protein tumour necrosis factor and human interleukin-l receptor—useful in thorapy, diagnosis and assays of e.g. rheumatoid arthritis, diabetes, cerebral malaria, sepsis, etc.
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                                                          AUCTECTOCAANECCGAAAGEAAATGGETCAGGTGGAGATCTCTTTGCACAGTGGAC
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                                                                                                                                                                  CBBBACACOGTGTGTGBCTGCAGBAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT
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Pred. No. 1.5e-140;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAA95105 standard; DNA; 1368 BP
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The present invention relates to polymorphic variants of the tumour necrosis factor receptor 1 (TNFR1) gene. The present sequence is the coding sequence of the TNFR1 gene. The sequence of the whole gene is given in AAA95102, AAA95103 and AAA95104. The polymorphisms were identified by amplifying and sequencing regions of the gene. Twelve polymorphic loci were discovered. Of these twelve polymorphisms, four can
                                                                                                                                                                                                Polynucleotides comprising polymorphic variants of a reference sequence for tumour necrosis factor receptor 1 (TNFR1), useful for studying the biological function of TNFR1 and identifying drugs targeting the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOCAGGGAGTGTGAGAGGGGGTGCTTCACAGAAAACCACCTCAGACACTGCCTC 180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TICCAGIGCTICAATTGCAGGCTCTGCGTCAATGGGACCGTGCACCTGCTGCCAGGAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cause a change in the TNFR1 protein The TNFR1 polymorphisms may be useful for studying the biological function of TNFR1 as well as for identifying drugs targeting the protein for treatment of disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 TGCNGGGAGTGTGAGAGAGGGCTTCAGAGATTTCAGAAAACCACCTCAGACACTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 AGCTGCTCCAAATGCCGAAAAGGAAATGGGTCAGGTGGAGATGTGTTGTTGGACAGTGGAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481 AAACAGAACACGTGTGCACGTGCATGCAGGTTTTCTTAAGAGAAAACGAGTGTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        related to its abnormal expression or function such as tumours, apoptosis related disorders and bacterial infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 483; DB 21; Length 1368; 100 0%; Pred No 1.5e-140;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1368 BP; 292 A; 424 C, 376 G, 276 T; 0 other;
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                                                                                                                  Stephens JC, Chew A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                      protein for treating disorders
                                                                                                                                                                                                                                                                                      "laim 7; Fig 4; 79pp; English.
                GENAISSANCE PHARM INC.
                                                                                                                  Nandabalan K, Schulz VP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 48%; Conservative
                            NANDABALAN K.
                                                                  STEPHENS J C.
                                                                                                                                                WPI; 2000-543909/49.
                                              SCHULZ V P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                    P-PSDB; AAB23446.
                                                                                (CHEW/) CHEW A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481 AAT 483
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              (GENA ) (
                                                (SCHOZ)
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tumour necrosis factor alpha interaction domain.

The invention relates to CadC fusion polypeptide nucleic acad constitution which are used to transform cells to produce systems for identitying compounds which medulate interactions between protein sequences. The CadC-fusion polypeptides comprise a periplasmic domain, a transmembrance domain and a CadC transcriptional regularizery domain. Cells transmembrance with nucleic acid encoding the fusion proteins and a cadRA reporter construct can be used for identifying compounds which modulation a specific protein interaction such as modulation of interactions between protein eggences involved in receptor interactions e.g. dimensation. Such methods can be used for identifying ligands for orphan receptors. The system is extremely sensitive in that background is low and the magnitude of signal background is quite robust, such that even miner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein-protein interaction; periplasmic domain; transmembrane domain;
CadC transcriptional regulatory domain; receptor interaction;
ligand identification; orphan receptor; ss.
                                                                                                                                                                                     CadC; fusion protein; tumour necrosis factor alpha interaction domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1001 AAGUSSSARAAAASSAASCTACTUSTACAATSACTISTEENASSEESAGAAAAATAA 33AT 19A.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              941 GATAGTGTGTGCCCGAAGGAAATATATCCACCCTCAAAATAATTCCTCTGTAATTCGATTTGCTCTCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 AGCTGCAAATGCCGAAAGSAAATGGSTCAASTGSAGTCTCTTCTTCTTGCACACRGGC 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GATAGEGESTSTCCCCGGAAGSAAATATFCGCCCCCGAAATAAATEGGATTFGTTGTAACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modulations in protein-protein interactions are readily detectable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 483; SP 20; Length 1478; 100.0%; Pred. No. 1.5e-140; tive 0; Mismatches 0; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This sequence encodes a CadC fusion polypeptide containing the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1478 BP, 398 A, 351 C, 346 G, 381 T, 2 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New CadC-fusion polypeptide nucleic acid constructs
                                                                                                                                                   CadC-fusion polypeptide coding sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (SMAL-) SMALL MOLECULE THERAPEUTICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Menzel R, Taggart PA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 4, Fig 3a; 123pp, English.
                                  AAX58150 standard; DNA; 1478 BP.
                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US23307.
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                                                                                                            21-JUL-1999 (first entry)
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    useful in treating cachexia,
    e.g. rheumatoid arthritis

                                                                                                                              New tumour necrosis factor alpha binding protein and polypeptide - reafil in treating cachexia, sepsis and auto immune diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1301
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    Disclosure, Fig 1, 25pp, English
                                                                                                                                                                                                                                                                                                                                                                                   Feldman M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-JUN-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-FEB-1992
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                                                                                                                                                                                                                                                                                                                                                                               Gray F,
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/note=="homologous to probe AAQ20974"
242..751
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                                CDS
                                                                                                                                   tumour necrosis factor alpha; extracellular binding domain; treatment; pulmonary diseases; septic shock; HIV infection; malaria; viral meningits; graft versus host disease;
                                                                                   Homo sapiens
                                                                                                                    autoimmune disease; rheumatoid arthritis
                                                                                                                                                                                                        Encodes TNF-alpha 55kD receptor.
                                                                                                                                                                                                                                           05-NOV-1992
                                                                                                                                                                                                                                                                                                            AAQ24440 standard; DNA, 2062 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2062 BP; 429 A; 616 C, 573 G, 444 T, 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                specifically rheumatoid arthritis. See also AAQ20974.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  causative agent, e.g. cachexia, sepsis and autoimmune diseases,
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                                                                                                                                                                                                                                                                                                                                                                                                                                     AAT 483
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                                156..1517
                                                 Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCAGGGAGTGTGAGAAQCAGTGCTTGAGGGCTTGAGAAAAACGCTGAGAGAGTGGCTC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 AAGTGCCAAAAAAAATTTATTTATTAAAAAAAAGACCGGGGGCGGGATAAGAA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     335 AAGTGCCACAAAGGAACTTACTTGTACAATGACTGTCCAGGGCGGGGGATACGGAC 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              restriction fragment which was cloned into prTNFP, giving pTNFPecd
DNA sequencing confirmed this contained the designed DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              See also AAQ24440 51, AAP24000, AAP24080 84, AAR27585, AAQ29236-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The TNF alpha receptor expression plasmids were then transfected
                                                                                                                                                                                                                                                                                                                                                    New polypeptide capable of hinding human TNF alpha - comprises
                                                                                                                                                                                                                                                                                                                                                                first three cysteine-rich subdomains of TNF alpha receptor for
treating autoimmune disease, septic shock, HIV etc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 483; DB 13; Length 2062; 100 0%; Pred No. 1.80-140; tive 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 2062 RP; 429 A; 618 C; 572 G; 443 T; 0 other;
                                                                                                                                                                                                                                                                                         Rronnan FM, Feldmann M, Gray PW, Turner MJC;
                                            /codon= seq:"TGG", aa;Thr
258..1260
                                                                                                                     codon= Seq."GAC", aa:Asn
                                                                                 codon≈ Seq"AAG", aa:Leu
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                                                                                                                                                                                                                                                                                                                                                                                                    Claim 4; Fig 1; 43pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 483; Conservative
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                                                                                                                                                                                                                                                                                                                              P-PSDB; AAR24000.
                                                                                                                                                                                                                18 OCT 1991;
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241 CGGGACACCGTGTGTGGCTGCAGAAAACCAGTAC CGCATTATTGGAGTGAAAACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30kD TNF inhibitor precursor gene in lambda-gt10-7ctnfbp.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and -beta, useful as therapeutic agent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tumour necrosis factor, inhibitor, ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
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                                                                    Tumour Necrosis Factor; binding proteins, septic shock;
                                                                                                       Encodes human 55kD TNF-binding protein.
                                                                                                                                                                                                                       AAQ10955 standard; cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2088 BP; 439 A; 626 C; 578 G, 445 T, 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for treating inflammatory and degenerative diseases mediated by TNF. The present sequence is the coding sequence for the precursor of 30 kDa TNF inhibitor. The 30~\mathrm{kDa} TNF inhibitor can inhibit TNF alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention relates to Tumour Necrosis Factor (TNF) inhibitors (see AAB37676 and AAB37685), which have TNF inhibitory activity. The novel TNF inhibitors of the present invention are useful as therapeutic agents for inhibiting the activity of TNF and interleukin (IL-1), and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 6; Fig 21, 82pp, English.
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                                                    autoimmune glomerulonephritis; lymphokine;
                                                                                                                                                 24-MAY-1991
                                                                                                                                                                                    AAQ10955;
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                                                                                                                                                                                                                                                                                                                   AAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          in 100.0%; Score 483; DB 22; Similarity 100.0%; Pred. No. 1.8e-140;
                                                                                                                                                 (first entry)
               Location/Qualifiers
                                                                                                                                                                                                                           2111
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                                                    cytokine.
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                                                                                                   481 AAT 483
                                                                                                                                       787 AAT 789
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                                                                                                                                                                                                                                                                                                                18-OCT-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCTGCTCCAAATGCCGAAAAGGAAATGGGTCAGGTGGAGATCTCTTGCACAGTGGAC 240
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCCAGTGCTTCAATTCCAGGCTCAATGGGACGTGCACCTCCTCCAGGAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Partial amino acid sequences were determined for the 55 and 75kD TNF RPs (see AAP11072-R11081) and oligomucleotide primers were synthesised based on these partial sequences. The primers were used to produce a cDNA fragment for use as aprobe to screen a human placental cDNA bank constructed in lambda gtll. Positive clones were identified and sequenced. DNA constructs comprising the TNF-BP coding Requence may also contain a fragment encoding a human Ig domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 AAGTGCCACAAAAGAAACCTACTTGTACAATGACTGTCCAGGCCGGGGGAGGATACGGAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              547 CGGIACACOUTUTUTUTUTUTATAAAAAOOAGTAAGAAAGAGAGAATAATTAGAAAAAGGTT 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             487 AGCTGCTCCAAATGCGGAAAATGSGTCAGGTGGAGTTCTCTTCTTGCACAGTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                         Insoluble tumour necrosis factor binding proteins - and DNA encoding them, useful in pharmaceutical prods. and for antibody
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 2111;
                                                                                                                                                                                                                                                                                                                                Dembic Z, Gentz R, Lesslauer W, Lotscher H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 483; DB 12;
100.0%; Pred No 1 Re-140;
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                                                        /product= 55kD TNF-RP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       improved TNF-binding properties.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 4; Fig 1; 26pp; German.
                                                                                                                                                                                                                                                                                       (HOFF ) HOFFMANN-LA ROCHE AG.
                                                                                                                                                                          90EP-0116707
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                                                                                                                                                                                                                                                                                                                                                                                                         PSDB; AAR11082
                                                                                                                                                                                                            20 APR-1990;
12 SEP-1989;
08-MAR-1990;
                                                                                                                                                                                                                                                                                                                                                  Schlaeger EJ;
                                                                                                                                                                                                                                                                                                                              Prockhaus M,
                                                                                                                                                                        31 AUG-1990;
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                      mat peptide
                                                                                               EP417563 A
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their (in)soluble fragments (13) and their safts that can bind tumoun necrosis factor (TNP). The products of the invention have anti-inflammatory and antimalarial activity. (1) and (1a) are used (1) to treat diseases in which TNP is involved (e.g. septic shock, autoimmune glomerulonephritis, cerebral malaria, immune responses and inflammation.) (i) to purify TNP, (ii) to identify TNP (ant)agonists and (1v) for diagnostic determination of TNP in hedy fluids. Antibodies taised detained (1) are used for affinity purification of (1). This sequence encodes a timour necrosis factor binding pratein described in the method of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tumour necrosis factor binding protein; TNF, insoluble protein; arounst; anti-inflammatory; antimalarial; treatment; septic shock; inflammation; autoimmune glomerulonephritis; cerebral malaria; immune response;
421 TCCTGTAGTAACTGTAAGAAAGCTGGAGTGCAAGITGTGCTGCCTACCCAATTTAG 482
727 TCCTGTAGTAACTGTAAGAAAAGCTGGAGTGCAGAAGTTGTGCCTACCCAAATTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New insoluble proteins, and fragments, that bind to tumor necrosis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 2111 BP; 445 A; 629 C; 587 G; 450 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human tumour necrosis factor binding protein cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dembic Z, Gentz R, Lesslauer W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag= a
/product= "TNP binding protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (HOPP ) HOPFMANN LA POCHE & CO AG F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
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100.0%, Score 483, DE 20; Length 2111;
Best Local Similarity 100.0%; Fred. No. 1.8e-140;
Matches 483; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                                                                                                                                   361 MALLASIALACOSTSTSCA SCISCATOCASSTTTCTTTCTAAGAGAAAAGGAGTGTGTC 420
667 AAACAGAACACCGTGIGCACCIGCCATGCAGGITTCTTCTAAGAGAAAAACGAGTGTGTC 726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241 OGGGAVAGOGIGIGIGIGGGIGGAGGAAGAAGAGTAGTGGGATTATTGGAGTGAAAAACCTT 300 [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [-1], [
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Search completed: January 6, 2003, 01:13:54 Job time : 274 secs

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Genfore vorsion 5.1.3 Copyright (c) 1993 - 2003 Compugen Ltd
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nucleic search, using sw model OM nucleic

Run on:

January 5, 2003, 22:52:37; Search time 51 Seconds (without alignments) 2904 409 Million cell updates/sec

US-09-882-735-1 Perfect score:

gnntannodagattgagaat 4A3 1 gatagtgtgtgtereraagg Sequence:

IDENTITY NUC Scoring table:

Gapop 10]0 , Gapext 1 o

Total number of hits satisfying chosen parameters:

441362 segs, 153338381 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Maximum Match 1008 Listing first 45 summaries Post processing: Minimum Match 08

Database :

Issued Patents_NA:*

\cquiz_6/ptodata1/lina/5A_COMB_seq.*
\cquiz_6/ptodata1/lina/5B_COMB_seq.*
\cquiz_6/ptodata1/lina/6A_COMB_seq.*
\cquiz_6/ptodata1/lina/6B_COMB_seq.*
\cquiz_6/ptodata1/lina/6B_COMB_seq.*
\cquiz_6/ptodata1/lina/ptTTTS_COMB_seq.*
\cquiz_6/ptodata1/lina/ptTTTS_COMB_seq.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		de			SUMMARIES	
Result No.	d 10.08	Query March	Length	P.G	dī	Description
: -	483	100.0	483	. 4	US-09-326-394-1	Sequence 1. Appli
2	483	100 n	1301	4	115-08-804-166-7	۲.
~	483	100.0	1301	4	US-08-910-991-7	Sequence 7, Appli
4	483	100.0	1478	4	US-09-149-922.6	9
r.	483	100.0	2062	-	US-08-050-319B-24	Sequence 24, Appl
9	483	100.0	5900	۲.	175 OR 465.982.24	24
7	483	100 n	2161	~	115-09-106-0388-1	,,
œ	483	100.0	2161	4	US-09-505-250-3	Sequence 3, Appli
6	483	100.0	2175	7	US 08 321 668·1	7
10	483	100 0	2175	-	US-08-837-941-1	<u>, , , , , , , , , , , , , , , , , , , </u>
11	483	100 0	2175		115-08-126-016-1	-
1.2	483	100.0	2175	4	US-08-054-970-1	Sequence 1, Appli
13	483	100.0	6889	٦,	US-08-286-740-2	(1
1.4	483	100.0	Кява	ď	PCT-11895-09576-2	Sequence 2, Appli
15	483	100 0	9689	C i	113 - 0.8 - 6.27 - 151A 6	v
16	475.2	9.8.4	400	-	11S-08-050-319R-47	47
1.7	475.2	98.4	600	c.	US 08-465-982-47	47,
18	475	98.3	1147	4	US-08-804-166-5	'n
13	475	98.3	1147	4	US-08-910-991-5	S,
20	424.4	87.9	1049	4	115-08-804-166-1	Sequence 1, Appli
21	424.4	87.9	1049	4	US-08-910-991-1	1,
2.2	424.4	87.9	1202	4	US-08-804-166-3	٣,
23	424.4	87.9	_	4	US-08-910-991-3	'n
24	383	79.3	504	-	US-08-050-319B-56	Sequence 56, Appl
52	183	79.3	504	7	US-08-465-982-56	26
97	181	78.9	501		∪-⊌ù-	1, ,
2.7	181	78.9	501	C)	US 08 465-982-1	'n

MOLECULE TYPE:

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Sequence	Sequence	Sequence 49,	Sequence	Souppopping	Sequence	Sequence	Sequence	Sequence 53,	Sequence	Sequence	Segmence	Sequebore	Sequence	Sequence 898, App	Sequence	Sequence	Sequence
US-08-050-319B-3	TE 08 465 982 3	TIS-08-050-319B-49	US-08-465-982:49	US-08-762-308-10	US-09-513-007 3	US-09-513-007-1	US 08 050 319B 53	US 08-465-982 53	FS 08.050.319B-51	US 08-465-982-51	US-09-411-722-3	118-09-404-650-1	US-04-404-650-3	US-09-221-017B-898	115-09-134-0016-2607	11S-08-343-443B-1	US-09-056-105-1
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372	372	474	474	1956	543	2440	477	477	462	462	1509	6816	6855	6173	1554	2371	2130
77.0	77.0	74 0	74.0	61.9	59.3	59.3	53.4	53.4	45.9	45.9	7.4	7 2	7 2	9.9	9.5	Ą.	6.3
372	372	357 2	357.2	299.2	286.4	286.4	257.8	257.8		221.8	35.6	34 B	34 8	31.8	31.6	31	30.6
œ	C)	۲,	31	32	33	34	35	36	77	38	39	40	4]	42	43	44	45

ALIGNMENTS

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APPLICANT: Bendele, Alison M.
APPLICANT: Sennello, Regina M.
APPLICANT: Edwards, Carl K.
TITLE OF INVENTION
COMBINATION THERAFY USING A THE BINDING
TITLE OF INVENTION
FROTEIN FOR TREATING THE-MEDIATED DISEASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SCHWARPE: Datenin Felesas #1 0, Version #1.30 SCHWARPE: Datenin Palease #1 0, Version #1.30 CHRPENT APPLICATION DATA.
APPLICATION NUMBER: US/09/326,394 FILING DATE: 08-DEC-1997 CLASSIFICATION: DATA.
APPLICATION: DATA.
APPLICATION: APPLICATION DATA.
APPLICATION MIMMER- US 60/032,587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 23-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/030 3007
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TIS 60/052,023
                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-FOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Zindrick, Thomas K.
REGISTRATION NUMBER: 32,185
REFERENCE/DOCKET NUMBER: A-430D
                                                                                                                                                                                                                                                                          ADDRESSEE. Amgen Inc.
STREET: 1840 DeHavilland Drive
CITY: Thousand Oaks
                                           ; Sequence 1, Application US/09326394; Patent No. 6306820; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEC ID NO: 1: SEQUENCE CHARACTERISTICS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 07-FEB-1997 PPIOP APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 09-JUL-1997
ATTOPNEY/AGENT INFOPMATION:
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nucleic acid
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                                                                                                                                                                               TITLE OF INVENTION CONTITUE OF INVENTION PRONUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER
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                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: US
ZIF, 91320-1789
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STRANDEDNESS:
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US-09-326-394-1
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FEATURE:

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US-08-804-166-7; Sequence 7, Application US/08804166; Patent No. 6193972...
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LOCATION:
US-09-326-394-1
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                                                                                                                                                                                                                                                                                                                                                                                                                         GENEFAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                        APPLICANT: Campbell, Robert K.
APPLICANT: Jameson, Bradford A.
APPLICANT: Chappel, Scott C.
TITLE OF INVENTION: HYRPID PROTEINS
PRIOR APPLICATION DATA
                                                      CURRENT APPLICATION DATA:
APPLICATION NUMBER US
                                                                                                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                         STREET: 419 Sevent CITY: Washington STATE: D.C. COUNTRY: USA
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                  FILING DATE:
CLASSIFICATION:
                                                                                        MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 USGGACAUCGTGTGTGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAT 483
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RESULT 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (202) 737-3528 INFORMATION FOR SEQ ID NO: "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 60/011,936
FILING DATE: 20 February 1996
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
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STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Browdy, Roger L
REGISTRATION NUMBER: :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH:
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; Sequence 7, Application US/08910991
; Patent No. 6194177

GENERAL INFORMATION:

APPLICANT: Campbell, Robert K. APPLICANT: Jameson, Bradford A. APPLICANT: Chappel, Scott C. TITLE OF INVENTION: HYBRID PROTEINS

NUMBER OF SEQUENCES:

US-08-910-991-7

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FILE REFERENCE: 9366-006
CURPENT APPLICATION NUMBER- US/09/149,922A
CURRENT FILING DATE: 1999-09-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EARLIER APPLICATION NUMBER: 60/064,058
EARLIER FILING DATE: 1997-11-03
NUMBER OF SEQ ID NOS. 57
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OTHER INFORMATION: n-a, c, g, or t
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; Patent No. 6265174
; GENERAL INFORMATION:
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Best Local Similarity
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100 0%; Pred. No. 4.5e-146;
tive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                      PatentIn Release #1.0, Version #1.30
                      E: BROWDY AND NEIMARK
419 Seventh Street N.W., Ste. 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NIMBER: CAMPRELL=2B
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-5197
                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/910,991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: 0A/A04,166
FILING DATE: 20 February 1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/011,936
FILING DATE: 20 February 1996
ATTORNEY/AGENT INFORMATION.
                                                                                                                                                                                                                                           MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: YUN, Allen C.
REGISTRATION NIMBER: 37,971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (202) 737 3528
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS;
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STRANDEDNESS: single
                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 530
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                                                                                                                                         USA
                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                     D.C.
                                                                                                                                                                                   22207
                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                         SOFTWARE
                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
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APPLICANT: Menzel, Rolf
APPLICANT: Hsing, Wethong
APPLICANT: Hsing, Pamela
TITLE OF INVENTION: METHODS AND COMFOSITIONS FOR IDENTIFYING AND MODULATINE
TITLE OF INVENTION: PROTEIN-PROTEIN INTERPACTIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   941 GATAGTGTGTGTGTCGCAAGSAAATATTGCAGGTGAAATAATTGGATTTGTTTGTGTACTGTG
                        765 TCCTGTAGTAACTGTAAGAAAGCCTGGAGTGCACGAAGTTGTGCTACCCCAGATTKAG 824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TICCAGIGCTICAATIGCAGCCTCTGAATGGGAGCGTGCACGTCTCCTCCTCCCAGGAGAAGA
421 TCCTGTAGTAACTGTAAGAAAAGGGTGGAGTGGAGGAGGTGGGGTTAGGGGAGATTGAG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 AAGTGCCACAAAGGAACCTACTTGTACAATGACTGTCGAGGCCGGGGGCAGGATAMGGAM 130
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          O; Gaps
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; LCCATION: 155
US-08-050-319B-24
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                                                                                                                                                                                                                                                                                                                      Matches 483,
                                                                                                                                                                                                                                                                                                                                                          Query Match
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INFURMATION FOR SEQ ID NO: 24:
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FILING DATE: 10-May-1993
CLASSIFICATION: 435
ATTOENEY/ACENT IMPOFMATION:
NAME: ROBBINS, ROBERTA L.
REGISTRATION NUMBER: 33,208
REGISTRATION NUMBER: 3208
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APPLICANT: M.J.C. Turner, F.M Brennan
TITLE OF INVENTION: Modified human TNPalpha (Tumor
TITLE OF INVENTION: Necrosis Factor alpha) Receptor
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455
              191 A2TT31YCAAAT31YGAAAT3AAAT3GGTCAGTTGGAGATCTCTTCTTGCACAGTGGAC 240
                                                                                                                                                                                                                                        275 GÁTÁSTSTSTSTSTSCCAASGÁÁÁATÁTATCCACCCTCÁAAATAATTCGÁTTTGCTGTACC 334
                                                                                                                                                         335 AAGTGUUAUAAAGSAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCAGGATACGGAC 394
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COMPUTER: 1BM PC compatible
OPERATING SISTEM: FC-DOS/MS-DGS
                                                                                                                                                                                              »1 AAGTGGGACAAAGGAACCTACTTGTACAATGACTGTGGAGGGCCGGGGGCAGGATACGGAC 120
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AGUIGUTUUAAATGUUGAAAGGAAATGGGTUAGGTGGAGATCTCTTCTTGCACAGTGGAC 514
                                                                                                                   TGCAGGGAGTGTGAGAGGGGCTCCTTCACCGCTTCAGAAAACCACCTCAGACACTGCCTC 180
                                                                                                                                                                                                                                                                                                                                         Similarity
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                                                                            ; LOCATION:
US-08-465-982-24
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Query Match 100.0%; Score 483; DB 2; Length 2062; Best Local Similarity 100.0%; Pred. No. 5.7e-146; Matches 483; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 24,
                                                                                                                                                                                                                                                                     TELEFAX: (415) 327-3231 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: M.Feldmann, P.W. Gray,
APPLICANT: M.J.C. Turner, F.M Brennan
TITLE OF INVENTION: Modified human TNFalpha (Tumor
TITLE OF INVENTION: Necrosis Factor alpha) Receptor
                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 51
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
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                                                                                                                                                      MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 10-May-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
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ZIP: 943
                                                                                                                                                                      STRANDEDNESS:
TOPOLOGY: lin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                  NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                 NAME: Robbins, Roberta L. REGISTRATION NUMBER: 33,2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 635 Brya
CITY: Palo Alto
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                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
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                                                                                                                                                                                                                            LENGTH.
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    Application US/08465982
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                                                                                                                                                                                                                              2062 base pairs
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                                                                                                                                                        cDNA to mRNA
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421 TCCPGTAGTAATAACTGTAAGAAAGCCTGGAGGAAGTTGTGCCTACCCCAGATTGAG 480
                                                                                                                                                                                       181 ACCTOPTO PARATION SAAAGSAAATOSSTCASSTOSAGATCTCTTGTTGCACAGTGGAC 240
                                                                                                                                                                                                                                                      241 CURRACACOTTERFERENCESCAGA ACCAGA ACCAGA ACCAGA ACCATA TESTA ACCATA 300
                                                                                                                                                                                                                                                                                                                   301 ITCCAGTGCTTCAATTGCAGCTCTGCCTCTAAATGGGGACCGTGCACCTCCCTGCCAGGAG 360
                                                                                                                                                                                                                                                                                                                                  695 TCCTGTASTAACTSTAASAAAAGACTAAAATGAAAAATTSTGAATACCCCAGATTAAAA
               455 AGCTGCTGTAAATGTGTAAAGGAAATGSGSTGAGGSTGGAGATGTTGTTGCACAGTGGAG 514
                                                                                                                                                                                                                                                                     1 GATAGRIGIGITOTOCOCAAGGAAAATATATOCACCCTCAAAATAATTGGATTIGCTGTFACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Brenda F. Baker and Lex M. Cowsert TITLE OF INVENTION: ANTISENSE MODULATION OF THERI TITLE OF INVENTION: EXPRESSION NUMBER OF SEQUENCES: 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2292 Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch disk, 1 44 Mb
COMPUTER: IRM PC compatible
OPERATING SYSTEM: Windows NT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           115/09/106,018A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Sequence 1, Application US/09106038A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: Laurel Spear Bernstein
REGISTRATION NUMBER: 37,280
REFERENCF/PC/YET N'MREP. RTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE Microsoft Word 97 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         June 26, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (760) 931-9200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (760) 603-3820 INFORMATION FOR SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE APPRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER - FILING DATE: June 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: Brenda
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TYPE: nu
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241 FGGSAPAPPBRISTSTSTSPAGTSPAGAAGAAFFFFFFFFFFFFFTTGGAGTGAAACTTT 301
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                                         100 0%; Score 483; DR 3; Length 2161; 100.0%; Pred. No. 5.8e-146;
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                                                                 Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Rosen, Glenn
APPLICANT: Kao, Peter
TITLE OF INVENTION: Synergistic Anti-Cancer Therapy with
TITLE OF INVENTION: Triptolides and Death Domain Ligands
FILE PREPRENCE SIRM-10AFRV2
CURRENT APPLICATION NUMBER: US/09/505,250A
                                                                 0; Mismarches
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                                                                  Matches 483; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: H. sapiens
           TOPOLOGY: linear
                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
STPANDEDNESS:
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                    US-09-106-038A-1
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US-08-321-668:1
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Patent No. 5665859
APPLICATION NOMER. TE/18/311,668
FILING DATE: 12-OCT-1994
CLASSIFICATION: 435
PRIOP APPLICATION DATA:
APPLICATION NUMBER: IL 107268
FILING DATE: 12-OCT-1993
ACTORNEY/ACTOR INFORMATION:
NAME: BROWDY, ROGER L.
REGISTRATION NUMBER: 25,618
REFERENCE/POCKET NUMBER: WALLACH=13
TELECOMMUNICATION INFORMATION.
TELEPHONE: 202 628 5197
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER PRADABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: ITE ongatible
GPERATURG SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Pacentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: WALLACH, David
APPLICANT: BHAKEHUSCH, Codd
APPLICANT: VARFOLOMBEV, Eugene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: DATKIN, Michael TITLE OF INVENTION: MOLECU TITLE OF INVENTION: THE TR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS
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STREET: 419 Seven
CITY: Washington
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    USA
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US-08-837-941-1

Sequence 1, Application US/08837941 Patent No. 5766917

GENERAL INFORMATION:

APPLICANT: WALLACH, David
AFFLICANT: WAREBUSCH, Cord
APPLICANT: VARROLOMEEV, Eugene
APPLICANT: BATKIN, Michael

MOLECULES INFLUENCING THE SHEDDING OF

THE TWF RECEPTORS, THEIR PREPARATION AND THEIR USE

NUMBER OF SEQUENCES: 4 TITLE OF INVENTION:

STREET:

419 Seventh Street, N.W.,

Suite 300

BROWDY AND NEIMARK

CITY: Washington ADDRESSEE:

D.C.

COUNTRY:

USA

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHAPACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 2175 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
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856 AAT 858
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                              481 AAT 483
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                                                              TCCTGTAGTAACTGTAAGAAAAGCCTTGGAGTGCAAGTTGTGCCTÄCCCAGATTGAG
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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Best Local Similarity
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856 AAT 858
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APPLICANT:
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                                                                                     RESULT 11
US-08-126-016-1
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US 08:126-016-1
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                                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/837,941
FILING DATE: 28-APR-1997
(TASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 25,618
REFERENCE/DOCKET NUMBER: WALLACH=13
                                                                                                                                                                                                                                                                                                                                       US 08/321,668
                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 12-0CT-1994
APPLICATION NUMBER: 11 107268
FILING DATE: 12-0CT-1993
ATTORNEY/AGENT INFORMATION:
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INFORMATION FOR SEQ ID NO: 1:
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TELEFAX: 202-737-3528
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STRANDEDNESS: single
                      COMPUTER READABLE FORM: MEDIUM TYPE: Floppy of
                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
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US 08 837-941-1
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100.0%; Score 483; DB 1; Length 2175;
100.0%; Pred. No. 5.8e-146;
tive 0; Mismatches 0; Indels 0; Gaps
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                                                                                                                                                                                   TITLE OF INVENTION: EXPRESSION OF THE RECOMBINANT TUMOR TITLE OF INVENTION: NECROSIS FACTOR RINGING PROTEIN I (THP 1) NUMBER OF SEQUENCES: 26 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWAPE: Patentin Pelease #1 0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                           STREET: 419 Seventh Street, N.W., Suite 300 CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PILING DATE: 24-SEP-1993
CLASSIFICATION. 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/625668
FILING DATE: 13-DEC-1990
ATTORNEY/AGENT INFORMATION:
NAME: RPWMDY, FOGER L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US/08/126,016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WALLACH4
                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
; Sequence 1, Application US/08126016; Patent No. 5811261; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                            ADDRESSEE: Browdy and Neimark
                                                                                                                       APPLICANT: ENGELMANN, HARTMUT
APPLICANT: BRAKEBUSCH, CORD
APPLICANT: ADERKA, DAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER: 25,618
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INFORMATION FOR SEQ ID NO: 1:
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                                                           WALLACH, DAVID
NOPHAR, YARON
KEMPER, OLIVER
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TELEFAX: 202-737-3528
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STRANDEDNESS: single
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Matches

483;

Conservative

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Pred. No. 5.8e-146; Mismatches 0;

Indels

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Best Local Similarity 100.0%;

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Query Match
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INFORMATION FOR SEQ ID NO.
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NAME: Townsend, Kevin G.
REGISTRATION UNINEEP: 34,033
REFERENCE/DOCKET NUMBER: WAL
TELECOMMUNICATION INFORMATION
TELEPHONE: $26.028 $197
TELEFAX. 202.737.3528
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MEDJIOM TYPE: Floppy disk
COMPUTER: IBM PC COMPACTIBLE
COMPUTER: Flore From Medica
SOFTWAPE: Parentin Pelesse #1.0, Version #1.25
CUERENT APPLICATION CATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: WALLACH, David
APPLICANT: BRAKEBUSCH, Cord
TITLE 00 LIVENTILL THE RECEPTOR ACTION MODULATION
NUMBER OF SEQUENCES: 8
                                                                                                                                                                                                   FEATURE
                                                                                                                                                                                                                                             MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 2175 base pairs
                                                                            LOCATION.
054-970-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE
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                                                                                                                                                        NAME/KEY:
                                                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                     STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AFFLICATION NUMBER:
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100.0%;
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Score 483;
DB 4;
Length 2175
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; Patent No. 5561053
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                                                                                                                                                                                                                                                                                                   COMPUTER PEADABLE FORM:
MEDIUM TYPE: 5..5 inch, 360 Kb floppy disk
                                                                                                                      APPLICATION NUMBER: US/08/286,740
FILING DATE: 05-AUG-1994
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
APPLICATION NUMBER:
                                                                                                                                                                                                                                   COMPUTER: IHM PC compatible OPERATING SYSTEM: PC-DOS/MS SOFTWARE, Patin (Genentech) CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION:
TELECOMMUNICATION INFORMATION.
                                                                             ATTORNEY/AGENT INFORMATION:
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CITY. South San Francisco
STATE: California
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           376 GATAGTGTGTGTCCCCAAGGAAAATATATCCACCCTCAAAATAATTCGATTTGCTGTACC 435
                                      NAME: Lee, Wendy M. REGISTRATION NUMBER:
                    REFERENCE/DOCKET NUMBER:
                                                                                                        FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           460 Point San Bruno Blvd
                                                                                                                                                                                                                                                                                IHM PC compatible SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genentech,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Craig W. METHUD FOR SELECTING HIGH-EXPRESSING HOST CELLS
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1725 GATAGTGTGTGTGTGTGTAAGAAATATATGGGCTCAAAATATAGTGGTGTAGC 1784
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                                                                                                                                                                                                                                                                  0; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: METHOD FOR SELECTING HIGH-EXPRESSING TITLE OF INVENTION: HOST CELLS NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PE: 5.25 inch, 360 Kb floppy disk
IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2, Application PC/TUS9409474 GENERAL INFORMATION:
APPLICANT. GENEWIECH, INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: patin (Genenrech) CURRENT APPLICATION DATA:
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                TELEX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 2:
TELEPHONE: 415/225-1994
                                                                     SEQUENCE CHAPACTFPISTICS:
                                                                                  LENGTH: 6889 bases
TYPE: nucleic acid
STRANDEDNESS: double
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                                                                                                                                      TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                         c; Gapes
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                                                                                                                                                                                                                                                                                                                         100.0%; Score 483; DB 5; Longth 6889;
100.0%; Prod No. 1e-145;
tive 0; Mismatches 0; Indels 0.
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APPLICANT: BECHERER, Kathleen
APPLICANT: BROWN, Steven
TITLE OF INVENTION: GORGESTIONS AND METHODS FOR
TITLE OF INVENTION: SCREENING DRUG LIBRARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 6, Application US/08627151A Patent No. 5866341
                                                         08/286740
                                                                                                                   000,000
                                                                                                                             REFERENCE/DOCKET NUMBER: 798
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/225-1994
TELEFAX: 415/952-9881
                                      FRIOR APPLICATION DATA.

APPLICATION NUMBER: 08/28
FILING DATE: 05-AUG-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                       Matches 483; Conservative
                                                                                                                                                                                       TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                   NAME: Lee, Wendy M. REGISTRATION NUMBER:
APPLICATION NUMBER:
                                                                                                                                                                                                                                    6889 bases
                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                         Similarity
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                             CLASSIFICATION:
               FILING DATE:
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PCT-US95-09576-2
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US-08-627-151A-6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEX:
INFORMATION FOR REQ ID NO. 6
SEQUENCE CHARACTERISTICS:
LENGTH: 6996 base pairs
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ATTORNET/AGENT INFORMATION.
ANAME: Fisher, Carlos A
REGISTRATION NUMBER: 36,510
REFERENCE/OCKET NUMBER: CB10
TELECOMMUNICATION INFORMATION:
TELEPHONE: 619,410-8926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 9212:
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
COMPUTER: DOS
    1475
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ADDRESSE: Gen-Probe Incorporated
ATTREET 10210 Genetic Center Drive
CITY, Sin Diego
STATE: CA
                                                                                                                                                                 1415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1295 COOCACACCOTOTOTOCCAOCACCACCACTACCACTATTGGAGTGAAAACCTT 1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1115 AAGTSCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCAGGATACGGAC 1174
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PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                      : ---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 AASTSCCACAAASSAACCTRCTTSTACAATSACTSTCCAASGCCCGGGGGAGATACGGAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER. FILING DATE: 03-AP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM CON OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: FastSEQ for Windows Version 2.0 JRRENT APPLICATION DATA:
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                                                                                                                                                             AAACAGAACACCGTGTGSCACCTGCCATGCAGGTTTCTTCTAAGAGAAAACGAGTGTGTC 420
TOUTSTAACTSTAAGAAAASCCTSSASTSCACSAAGTTSTSCCTACCCCAGATTSAS 480
                                                                                                                                                                                                                                                                                                                       TECCASTECTICAATTSCASCCTCTSCCTCAATSSSACCSTSCACCTCTCCTGCCAGGAG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGLAGGERATISTGAGAGGGCTTCACCGCAAAAACCACCTCAGACACTGCCTC 1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCAGGGAGTGTGAGAGGGGCTTCAGGGCTTCAGAGAAAACCACCTCAGACACTGCCTC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATAGTGTGTGCCCAAGGAAAATATATCCACCCTCAAAATAATTCGATTTGCTGTACC 1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SATAGTGTGTGTGCCGAAGGAAAATATATGCAGCCTGAAAATAATTCGATTTGCTGTACC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUSACACOGIGIGIGGCIGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT 300
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AAT 483

Db 1535 AAT 1537

Search completed: January ϵ , 2003, 01.15:08 Job time : 70 secs

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Copyright (c) 1993 - 2003 Compugen Ltd
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OM nucleic - nucleic search, using sw model

January 5, 2003, 23-40-23; Search time 55 Seconds (without alignments) 3798.175 Million cell updates/sec Run on:

US-09-882-735-1 483 Perfect score

l gatagtgtgtgtccccaagg.......gcrfaccrcagattgagaat 483 Sequence:

IDENTITY_NUC Scoring table:

Gapop 10.0 , Gapext 1.0

Searched:

Total number of hits satisfying chosen parameters:

381593 seqs, 216252194 residues

Minimum DB seq length, o Maximum DB seq length, 2nononnon

Maximum Match 100% Listing first 45 summaries Post processing: Minimum Match 08

Database :

Published Applications NA:*

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2. /cqn2 6/ptodata/2/pubpna/USO6_NEW_PUB.seq:*
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/cgn2_6/prodata/2/pubpna/USO9_PUBCOMB_seq:*/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*/cgn2_6/ptodata/2/pubpna/US10_PUBCOMB_seq:* /cgn2_6/ptodata/2/pubpna/US60_NEW_PUB.seq:*/cgn2_6/ptodata/2/pubpna/US60_PUBPGOME_seq:* 10: 11: 12: 13:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		o s e			Social Property Co.	
Result		Query				
CN	Score	Match	Match Length DB	DB	ID	Description
	483	100.0	483	6	US-09-898-234-3	Sequence 3, Appli
5	483	100.0	483	σ	11S-09-899-429A-3	~
~	483	100 0	483	6	118-09-792-356-3	~
4	483	100.0	483	10	US-09-899-422-3	m
r.	483	100.0	483	10	US-09-907-263-1	1,
ي	483	100.0	486	6	US-09-899-429A-5	٠.
7	483	100.0	516	6	US-09-899-429A-19	6
Œ	483	100.0	519	6	US-09-899-429A-15	15,
6	483	100.0	549	6	US-09-899-429A-9	. 6
10	483	100.0	570	6	11S-09-899-429A-17	17,
11	483	100.0	009	б	US-09-899-429A-11	Sequence 11, Appl
1.2	483	100.0	603	6	US-09-899-429A-13	13,
13	483	100.0	633	6	US-09-899-429A-7	7, A
14	483	100.0	1301	10	US-09-756-186-7	~
12	483	100.0	1334	6	US-09-898-234-11	Sequence 11, Appl
16	483	100.0	1334	6	US-09-792-356-11	1,
1.7	483	100.0	1334	10	115-09-899-422-11	
18	483	100.0	1368	¢.	US-09-898-234-1	-
1.6	483	100.0	1368	3.	US-09-849-424A-1	Sequence 1, Appli

	Sequence 68, Appl Sequence 68, Appl Sequence 78, Appl Sequence 20, Appl Sequence 36, Appl
9 US-09-792-156-1 10 US-09-898-234-16 9 US-09-898-234-16 9 US-09-899-4221 1 10 US-09-898-234-14 10 US-09-899-422 14 10 US-09-999-422 14 10 US-09-999-532-1 10 US-09-999-532-1	9 US-09-792-356-68 10 US-09-899-422-68 9 US-09-899-429A-78 9 US-09-898-234-20 9 US-09-899-429A-30
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ALIGNMENTS

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APPLICANT: Hauptmann, Rudolph
APPLICANT: Hummler, Adolph
APPLICANT: Murer-Fogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: The Receptors, TWF Binding Proteins and DMAs Coding for FILE REPERENCE: 98,385-1
                                                                                                                                                                                                                                                                        CURRENT FILING DATE: 2001-07-03
PPIOR APPLICATION NUMBER: US/09/898,234
CURRENT FILING DATE: 2001-07-03
PPIOR PPILICATION NUMBEP: 09/525,998
PRIOR FILING DATE: 2000-03-15
PRIOR APPLICATION NUMBER: 08/381,676
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR PILING DATE: 1993-11-17
PRIOR FILING DATE: 1992-01-02
PRIOR FILING DATE: 1990-04-20
                  Sequence 3, Application US/09898234; Patent No. US20020155112A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
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US-09-898-234-3
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US-09-898-234-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
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Query Match 100.0%; Score 483; DB 9; Length 483; Best Local Similarity 100.0%; Pred. No. 2.2e-148; Matches 483; Conservative 0, Mismatches C, Indels 0; Gaps

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FILE REFERENCE: 98-385-J
CURRENT AFFLICATION NUMBER: US/09/899,429A
CURRENT FILING DATE: 2001-07-03
FRISE AFPLICATION NUMBER: 09/732,356
PRIOR FILING DATE: 2000 02 23
PRIOR FILING DATE: 1955-06-07
PRIOR APPLICATION NUMBER: 08/477,639
PRIOR APPLICATION NUMBER: 08/383,676
PRIOR APPLICATION NUMBER: 08/383,676
PRIOR FILING DATE: 1955-02-01
PRIOR FILING DATE: 1995-02-01
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR FILING DATE: 1992-01-02
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Patent No. US20020169118A1
GENERAL INFORMATION:
Best Local Similarity
                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 07/511,430
PRIOK FILING DATE: 1990-04-20
NUMBER OF SEQ ID NOS: 97
SOFTWAPE: Patentin Ver 2 0
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APPLICANT: Himmler, Adolph
APPLICANT: Maurer-Fogy, Ingr
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TITLE OF INVENTION: TWF Receptors, TNF Binding Proteins and DNAs Coding
TITLE OF INVENTION: Them
                                                                                                                                                                               NAME/KEY: CDS
LOCATION: (1)..(483)
                                                                                                                                                                                                                                                                                TYPE: DNA ORGANISM: Hono sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 483
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Maurer-Fogy, Ingrid
Stratowa, Christian
100.0%;
Score 483; DB 9;
Fred Mo 2.2e-148;
                                           Length 483;
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                                                                                                                                                                             PRIOR APPLICATION NUMBER: 08/153,287
PRIOR FILING DATE: 1993-11-17
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR FILING DATE: 1992-01-02
PRIOR APPLICATION NUMBER: 07/511,430
PRIOR FILING DATE: 1990-04-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                             SEQ ID NO 3
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ORGANISM: Homo sapiens FEATURE: NAME/KEY: CDS LOCATION: (1)..(483)
                                                                                                                                                                                                                                                                                                                                   APPLICANT: Stratowa, Christian
TITLE OF INVENTION: The Receptors, TWF Binding Proteins and DNAs Coding
TITLE OF INVENTION: The Receptors, TWF Binding Proteins and DNAs Coding
TITLE OF INVENTION: Them
CURRENT APPLICATION NUMBER: US/09/792,356
CURRENT APPLICATION NUMBER: US/09/792,356
CURRENT FILING DATE: 2001-08-17
PRIOR APPLICATION NUMBER: 08/477,639
PRIOR APPLICATION NUMBER: 08/477,639
PRIOR FILING DATE: 1995-06-07
PRIOR APPLICATION NUMBER: 08/383,676
PRIOR FILING DATE: 1995-06-07
PRIOR FILING DATE: 1995-06-07
PRIOR FILING DATE: 1995-02-01
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APPLICANT: Himmler, F
APPLICANT: Maurer-Fog
APPLICANT: Stratowa,
                                                                                                                                                               SOFTWARE: PatentIn Ver. 2.0
                                                                                                 TYPE: DNA
                                                                                                                   LENGTH:
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Maurer-Fogy, Ingrid

Meratowa, Christian
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(483)

NAME/KEY: CDS

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APPLICANT: Maurer-Eogy, Ingrid
APPLICANT: Maurer-Eogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: Them
TITLE OF INVENTION: Them
FILLE REPERINCE: 98,385.H
("URRENT POLICATION NUMBER: US/09/899,422
CURRENT FILING DATE: 2001-08-21
FRICH APPLICATION NUMBER: 08/525,998
FRICH APPLICATION NUMBER: 08/525,998
FRICH APPLICATION NUMBER: 08/525,998
FRICH APPLICATION NUMBER: 08/18,287
FRICH APPLICATION NUMBER: 08/18,287
FRICH APPLICATION NUMBER: 07/821,750
FRICH APPLICATION NUMBER: 07/821,430
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                                                   .,
     Length 483;
                                                 Indels
Query Match 100.0%; Score 483; DB 9; L
Best Local Similarity 100.0%; Pred. No. 2.2e-148;
Matches 483; Conservative 0; Mismatches 0;
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US 09 899 422-3
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Sennello, Regina M.
Edwards, Carl K.
TITLE OF INVENTION COMBINATION THERAPY USING A THE RINDIMS
PROTEIN FOR TREATING THE MEDIATION GLOBALDS
                                                                                                                                                                                                                                                                   AGCTGCTCCAAATGCCGAAAGGAAATGGGTDAGATGGAATGTCTCTTCTTGTAGAGAGAA
                                      100.0%; Score 483; DB 10; Length 484; 100.0%; Pred. No. 2.2e-148;
                                                                Indels
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                                                                0; Mismatches
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FILING DATE: 17-Jul-2001
CLASSIFICATION: <Unknown>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSEE: Amean inc.
STREET: 1840 DeHavilland Drive
CITY: Thousand Oaks
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ZIP: 91320-1789
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                 100.08;
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                                                                  Matches 483; Conservative
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; LOCATION: (1)
US-09-899-422-3
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              Sequence 5, Application US/09899429A Patent No. US20020169118A1
GENERAL INFORMATION:
APPLICANT: Hauptmann, Rudolph
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Best Local
  APPLICANT:
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FILING DATE: 23-JAN-1997
APPLICATION NUMBER: US 60/039,315
FILING DATE: 07-FEB-1997
APPLICATION NUMBER: US 60/052,023
FILING DATE: 09-JUL-1997
ATTORNEY/AGENT INFORMATION:
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TYPE: nucleic acid
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Himmler, Adolph
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; LOCATION: (1)
US-09-899-429A-5
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PRIOR FILING DATE: 1955-06-07
PRIOR APPLICATION NUMBER: 08/383,676
PRIOR FILING DATE: 1995-02-01
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR FILING DATE: 1993-11-17
PRIOR FILING DATE: 1993-11-17
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR APPLICATION NUMBER: 07/821,750
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE: 1992-01-02
PRIOR APPLICATION NUMBER: 07/9
PRIOR FILING DATE: 1990-04-20
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                                        TCCTGTAGTAACTGTAAGAAAAGCCTGGAGTGCACGAAGTTGTGCCCTACCCCCAGATTGAG
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AAT 483
                                                                              TCCTGTAGTAACTGTAAGAAAAGCCTGGAGTGCACGAAGTTGTGCCTACCCCAGATTGAG
                                                                                                                             TTCCAGTGCTTCAATTGCAGCCTCTGCCTCAATGGGACCGTGCACCTCTCCTGCCAGGAG
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100.0%; Pred. No. 2.2e-148;
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484 AAT 486

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ORGANISM: Artificial Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; NAME/KEY: CDS
; LOCATION: (1)..(519)
US-09-899-429A-15
                                                                                                                                                                                                                GENERAL INFORMATION:
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                                        481 AAT 483
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                                                                                                                              APPLICANT: Maurer-Popy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: Them
FILE REFERENCE: 98.385-J
CURPENT APPLICATION TOWN
CURPENT APPLICATION TOWN
CURPENT APPLICATION TOWN
CURPENT FILING DATE: 2001-07-03
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100 O%; Pred No 2.3e-148;
itive 0; Mismatches 0; Indels 0; Gaps
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PRIOR FILING DATE: 2000 02 23
PRIOR FILING DATE: 2000 02 23
PRIOR PAPLICATION NUMBER: 09/477,619
PRIOR PLING DATE: 1955-06-07
PRIOR PAPLICATION NUMBER: 08/383,676
PRIOR FILING DATE: 1955-02-01
PRIOR FILING DATE: 1993-11-17
PRIOR PILING DATE: 1993-11-17
PRIOR PILING DATE: 1993-11-17
PRIOR APPLICATION NUMBER: 07/511,430
PRIOR FILING DATE: 1990-04-20
NUMBER OF SEQ ID NOS: 97
                                    Sequence 19, Application US/0989429A Patent No. US20020169118A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Artificial Sequence
                                                                                               APPLICANT: Hauptmann, Rudolph
APPLICANT: Himmler, Adolph
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                                                                                                                  Adolph
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US 09|899-429A 19
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                                                                           GENERAL INFORMATION:
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                  US 09 899-429A-19
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APPLICANT: Himmler, Adolph
APPLICANT: Himmler, Adolph
APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: TWP Receptors, TNF Binding Proteins and BMAs Chelled for PILLE OF INVENTION: Them
FILE REFERENCE: 98-385-J
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100.0%; Pred. No. 2.3e-148;
tive 0; Mismatches 0; Indels 2; Gaps
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Matches 483; Conservative 0; Mismatches
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FRIOR PILING DATE: 2000 02 23
FRIOR AFFLICATION NUMBER: 08/477,630
PRIOR FILING DATE: 1955-06-07
PRIOR PILING DATE: 1955-02-01
PRIOR FILING DATE: 1995-02-01
PRIOR FILING DATE: 1993-11-17
PRIOR PILING DATE: 1993-11-17
PRIOR PELING DATE: 1993-11-17
PRIOR PILING DATE: 1993-11-17
PRIOR PILING DATE: 1993-11-02
PRIOR AFPLICATION NUMBER: 07/821,750
PRIOR AFPLICATION NUMBER: 07/821,750
PRIOR AFPLICATION NUMBER: 07/821,750
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Best 1:131
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APPLICANT: Himm.er, Adolph
APPLICANT: Maurer-Foyy, Ingrid
APPLICANT: Stratowa, Christian
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                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
LOCATION: (1)...(549)
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217 AGCINGUIGUAAAIGUCGAAAGGAAAIGGATUAGGTGGAGATUTCTTCTTGCACAGIGGAC 276
               191 AUCHSCHEUMAATSCHÜAAAGSAAAFSSTEABSTSAGATSTTTTTTTTGCACAGTGGAC 240
                                                                                                             111 160А693А6ТЭТБАЗАБСБЕСТССТТСАССБЕТТСАВААААССАССТСАВАСАСТВССТС 180
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                                                                                                                                                   AAGI GOORGAAGGAAGGTACTTSTACAATGACTGTCCAGGCCCGGGGCCAGGATACGGAC 156
                                                                                                                                                                                                                                             SALAGISISISTCCCCAAGGAAAATATATCCACCCTCAAAATAATTCGATTTGCTGTACC 60
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o. US20020169118A1
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US-09-899-429A-17
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                                                                                                                                                                                                                    Matches 483;
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CURRENT FILLING DATE. 2001-07-03
PRIOP APPLICATION NUMBER: 09/792,356
PRIOR FILING DATE. 2003-02-23
PRIOR APPLICATION NUMBER: 08/477,639
PRIOR FILING DATE: 1955-06-07
PRIOR FILING DATE: 1955-06-07
PRIOR PILING DATE: 1955-06-07
PRIOR PILING DATE: 1955-02-01
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PRIOR FILING DATE: 1990-04-20
NUMBER OF SEQ ID NOS: 97
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PRIOR FILING DATE: 1993-11-17
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR FILING DATE: 1992-01-02
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FILE REFERENCE: 98-385-J
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA ORGANISM: Artificial Sequence
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121 TGCAGGGAGTGTGAGAGCGGCTCCTTCACCGCTCAGAAAACCACCTCAGACACTGCCTC 180
                                         148 AAGTGCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCAGGATACGGAC
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                                                                                   61 AAGTGCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCCAGGATACGGAC 120
                                                                                                                            88 GATAGTGTGTGTCCCCAAGGAAAATATATCCACCCTCAAAATAATTCGATTTGCTGTACC 147
                                                                                                                                                    1 GATAGTGTGTGTCCCCAAGGAAAATATATCCACCCTCAAAAATAATTCGACTTTGCTGTACC 60
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VENTICH: TNF Receptors, TNF Binding Proteins and thas Coding for
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APPLICANT: Maurer-Eogy, Ingrid
APPLICANT: Maurer-Eogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: The Receptors, TNF Rinding Proteins and DNAs Coding for
TITLE OF INVENTION: Them
FILLE REFERENCE: 98-385-J
CURPENT RILING DATE: 2001-07-03
PRIOR APPLICATION NUMBER: 09/792,356
PRIOR APPLICATION NUMBER: 09/792,356
PRIOR APPLICATION NUMBER: 08/39,676
PRIOR FILING DATE: 1955-06-07
PRIOR FILING DATE: 1955-06-07
PRIOR FILING DATE: 1995-07-01
PRIOR APPLICATION NUMBER: 08/38,676
PRIOR FILING DATE: 1992-01-07
PRIOR FILING DATE: 1992-01-07
PRIOR APPLICATION NUMBER: 08/38,11-17
PRIOR FILING DATE: 1992-01-02
PRIOR FILING DATE: 1992-01-02
PRIOR FILING DATE: 1990-04-20
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                                                                                   268 AGCTGCTCCAAATGCGGAAAGGATGAGTGAGGTGGAGATCTCTTGCTGCACAGTGGAC 327
                                                                                                                                                241 COGGACACCCTGTGTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT 300
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                                                               OTHER INFORMATION: Description of Artificial Sequence: recombinant OTHER INFORMATION: TNF-BP sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Application US/09899429A
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APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: The Receptors, TNF Binding Proteins and DNAs Coding for
TITLE OF INVENTION: Them
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                                                                               148 AAGTGCCACAAAGGAACCTACTTGTACAATSACTGTTCTTCAAACCAAARTAAATTGTACAAA
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CURRENT APPLICATION NUMBER: 108/09,429A

CURRENT PILINS FATE 2001-07-03

PRIOR APPLICATION NUMBER: 09/792,356

PRIOR FILING DATE: 2006-02.33

PRIOR FILING DATE: 1955-06-07

PRIOR FILING DATE: 1955-01

PRIOR FILING DATE: 1995-02-01

PRIOR FILING DATE: 1995-02-01

PRIOR FILING DATE: 1993-11-17

PRIOR FILING DATE: 1993-11-17

PRIOR FILING DATE: 1993-01-02

PRIOR FILING DATE: 1993-01-02

PRIOR PLING DATE: 1993-01-02

PRIOR PLING DATE: 1993-01-02

PRIOR PLING DATE: 1993-01-02

PRIOR PRIOR DATE: 1993-01-03

NUMBER OF SEQ 1D NOS: 97

SEQ 1D NO 13
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APPLICANT: Himmler, Adolph
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LOCATION: (1)
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Best Local dimilarity 100 (
" Them 483; Conservative
                                       SEQ ID NO 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Stratowa, Christian
TITLE OF INVENTION. THE Receptors, THE Binding Proteins and DNAs Coding for
TITLE OF INVENTION. Them
FILE REFERENCE: 98-385-J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Hauptmann, Rudolph
APPLICANT: Himmler, Adolph
APPLICANT: Matter-Fogy, Ingri
APPLICANT: Stratowa, Christic
                                                                                    SOFTWARF: ParenrIn Ver
LENGIH: 633
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Stratowa, Christian
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100 0%; Fred No 2.5e 148,
ative 0; Mismatches 0;
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Sequence 7, Application US/09756186
Patent No. US20010014333A1
GENERAL INFORMATION:
AFPLICANT. Campbell, Robert K.
AFPLICANT. Jameson, Bradford A.
AFPLICANT. Chappel, Scott C.
TITLE CF INVENTION: HYSEID PROTEINS
NUMBER OF SEQUENCES: 22
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US-09-756-186-7
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                                                                      ZIF: 22207
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AND NEIMARK
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                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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Similarity 100.0%; Pred No 2 5e-148;
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                                                                                                                                                                                             419 Seventh Street N.W., Ste. 300
                                                                                                                                   USA
                                                                        Floppy disk
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AFFLICATION NUMBER.

US/09/756,186

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Search completed: January 6, 2003, 01:16:03
                                                                                                                                                                                                                                                        ORGANISM: Artificial Sequence
                                                                                                                                                                                                        SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                               Matches 483; Conservative
                                                                                                                                                                                                                                                                                             LOCATION: (213)..(1325)
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Best Local Similarity
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                                                                                                                                                                                                                    SEQ ID NO 11
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                                                                                              CAMPBELL-2A
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                     08/804,166
                                                                  NAME: Browdy, Roger I,
REGISTRATION NUMBER: 25,618
REFERENCE/DOCKET NUMBER: CAMPI
TELECOMMINICATION INFORMATION:
TELEPHONE: (202) 737-3528
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
                                            CLASSIFICATION: ATTORNEY/AGENT INFORMATION:
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APPLICANT: Himmler, Adolph
                                                                                                                                                               LENGTH: 1301 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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Matches 483; Conservative
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        PRIOP APPLICATION DATA:
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                    APPLICATION NUMBER:
                                                                                                                                                                                                                MOLECULE TYPE: CDNA
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CLASSIFICATION:
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                                  FILING DATE:
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LOCATION:
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APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION. THE Receptors, TNF Binding Proteins and UNAC Coding for
TITLE OF INVENTION: Them
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 TGCAGGARATGATARGARAGATATTTARGARATATARAAAAATATCTAAGATACTGATTGATATA 188
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 483; DB 9; Length 1334; 100.0%; Pred. Mo. 3.9e-148; Attive 0; Mismatches 0; Indels 0;
                                                                             FILE REFERENCE: 98,385-11
CURRENT APPLICATION NUMBER: US/09/898,234
CURPENT PILLING DATE: 2001.07.03
PRIOR PELLING DATE: 2000.03-15
PRIOR APPLICATION NUMBER: 09/525,998
PRIOR APPLICATION NUMBER: 08/383,675
PRIOR PLLING DATE: 1995-02-01
PRIOR PLLING DATE: 1993-11-17
PRIOR PLLING DATE: 1993-11-17
PRIOR PLLING DATE: 1992-01 02
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR PLLING DATE: 1990-01-07
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR FILING DATE: 1990-04-20
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Genfore version 5 1.3
Copyright (c) 1993 - 2003 Compugen Ltd.
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- nucleic search, using sw model OM nucleic

January 6, 2003, 01.15.13 , Search time 2225 Seconds (without alignments) 3515.694 Million cell updates/sec Run on:

US-09-882-735-1 483 Title: Perfect score:

.....gcctacccagattgagaat 483 gatagtgtgtgtccrcaagg Sequence:

Scoring table:

IDENTITY_NUC Gapop 10 0, Gapext 1 0

16154066 segs, 8097743376 residues Sparched

32308132

Total number of hits satisfying chosen parameters: Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post processing: Minimum Match 10% Maximum Match 100% Listing first 45 summaries

EST: * Database :

em_estin: em_estov: em_estpl: em_estpl: em_htc: qb_est: qb_est2: em esthum:* em_estba:*

qb_gss:*
em_gss_hum.*
em_gss_inv:* em_gss_pln:* em_gss_vrt:* em gss mam:* em gss fun:* em estfun:* em_estom:* gb_est4:* gb_est5:* qb est3:* qb_htc:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

em gss other:*

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SUMMARIES

		مين				
Result No.	Score		Query Match Length DB	DB	ID	Description
-	483	100.0	931	14	931 14 BQ723672	BO723472 AGENÇÇÜP
2	483	100.0	957	σ	A1.559050	AL559050 AL559050
~	483	100.0	974	15	BG180101	EG180101 602329676
4	482	8.66	761	6	AU131978	AU131978 AU131978
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9	480.4	99,5		13	1070 13 RM546826	BMS46826 AGENCOTTRI

MMH60044 AGENCOURT	ALS77008 ALS77008	BI821169 603035048	ALS29836 ALS29836	BE871809 601448388	RI870917 66333462	AU12%021 AU128921	BI769006 603058164	AU124446 AU124446	AU142156 AU142158	RQ723589 AGENCOURT	BI757365 6010,9517	AU1 17990 AU1 17 196		BI766980 603054365	RE876920 601488490	BQ719773 AGENCLUPT	BORRZ704 AGENCLAURT	AULZSERG AULZSERO	BE710028 ILA HT04.1	BGC77121 (02014792	BE549214 661078765	RQ9264C9 AGENCHIT	AU124156 AU124156				4				<	BF839822 RC3 HT0.3		BE869492 661446157	BE693950 MR4 PT059	BG282718 602406578	BO345703 PM3 NT031	BO326950 RC4 "N920
BM800044	AI.577008	BI821169	AL529836	BE871809	BI870917	AU125021	B1769006	AU124446	AU142156	BO723589	BI757305	AU137990	E-3681438	BI766980	PER76920	BQ719773	BQ882704	AU125680	BE710028	BG677101	BE549214	BQ926409	AU124156	BI831497	PG001080	BQ335492	BI917624	AU142163	AU125694	AU126303	AU124519	BF839822	126082	9	BE693950	BG282718	BQ345703	BQ326950
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ALIGNMENTS

Eukaryota; Metazoa; Chordata; Craniata; Vortebrata; Eutelegationi, Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

E 1 (bases 1 to 931)

Nul-MoC http://mgc.noi.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (McC)

L Oppublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: Gapba-ramail.nih.gov

Tissue Procurement: Dr. James R. Lupski

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G. Consortium (H.M.)

DNA Sequencing by: Agencyurt Rioscience Corporation

Clone distribution: MGC clone distribution information can be the pitch: LLAM13573 row. d column. 24

High quality sequence stop: 607. BQ723672 AGENCOURT 8489850 Lupski dorsal root ganglion Homo sapiens cDNA COOR IMAGE:6184295 5', mRNA sequence. BQ723672 BQ723672.1 GI:21862569 human. DEFINITION ORGANISM JOURNAL COMMENT ACCESSION VERSION KEYWORDS REFERENCE AUTHORS RESULT 1 BQ723672 SOURCE

SOUTE

FEATURES

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KEYWORDS
                                                                                                                   ACCESSION
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                                                                                                                                                                                                                AL559050
                         ORGANISM
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                                                                                                                                                                                                                                                                                                                                                            AAT 483
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                      Homo sapiens
                                                                                                                                                                AL559050 LTI_NFL008_TC2 Homo sapiens cDNA clone CS0DJ010YB05
                                                                                            AL559050.1 GI:12904166
                                                                                                                AL559050
                                                                                                                                       prime, mRNA sequence.
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="Vector: pCMV-SPORT6 (Life Technologies); Site_1: Not1, Site_2: Sall; cDNA made by oligo-dT priming. Directionally cloned using the following adaptors: 5'-TUCANCUCANGUCTCUG-J' and 5'-GACTAGTTCTAGATTGCGGAGCGGCCCT[15]-J'. Size selected > 5'-GACTAGTTCTAGATTGCGGAGCGGCCCCT[15]-J'.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /tissue_type="dorsal root ganglia"
/dev_stage="adult, 36 yr"
/lab_host="DH108"
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/sex="male"
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/db_xref="taxon:9606"
/clone="IMAGE:6184295"
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Email: segref@genoscope.cns.fr,
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/note="Vector: pcWVSPORT 6; Site 1: Not1; 1st strand cDNA
/note="Wector: pcWVSPORT 6; Site 1: Not1; 1st strand cDNA
was primed with a Not1-oligo(df) primer. Five prime end
enriched, double-stranded cDNA was digested with Not I and
cloned into the Not I and Eco RV sites of the pcMVSPORT 6
vector: Library was normalized. Library was constructed by
Life Technologies. Contact: Feng Liang Life Technologies,
a division of Invitrogen 9800 Medical Center Drive
Rockville, Maryland 20850, USA Fax: (1) 301 610 8371
Email: fliang@lifetech.com URL:
http://fulllength.invitrogen.com"
1 others
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/clone_lib="LTI_NFL008_TC2"
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Pred. No. 6.8e-143;
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/lab host "DH10B (phage-resistant)"
/lab host "Tryn" proster; proter; proffw-SPDFT6, Site_1: NotI;
Site_2: Sall; Cloned unidirectionally; oligo-dT primed.
Average insert size 1.4 kb. Library enriched for
full length clones and constructed by Life Technologies.
Note: this is a NIH MGC Library."
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      EST 06-FEB-2001
                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                    602329676F1 NIH_MGC_91 Homo sapiens cDNA clone IMAGE:4431019 5',
                                                                                                                                                                                                                                                                                                                                                                 DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at-
http://image.lln.gov
Plate: LLAM10185 row: g column: 20
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                                                                                                                                                                                                                                National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              118 GATAGIGIGIGICA COCAAGGAAAA TATATOGA COTOAAAA TAATIOGATITIGGIGIAGO 177
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    linear
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      PRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
                                                                                                                                                                                                                                                                          Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone_lib="NIH_MGC_91"
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/clone="IMAGE:4431019"
974 hp
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NIH-MGC http://mgc nci.nih gov/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                        Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTP
                                                                            BG180101.1 GI:12686804
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/note="Vector: pME18SFL3; mRNA from NT2 neuronal prefursor
cells after 2 weeks retincic acid (RA) induction"
199 c 201 g 179 t 4 others
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Mammalia; Eutheria: Primates; Catarrhini; Hominidae; Home.
1. (bases 1 to 761)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: genomics%hri.cc.jp
HRI human cDNA project; 5'- & 3'-end one pass sequencing: Hel:x
Research Institute; cDNA library construction: Department of
Virology, Institute of Medical Science, University of Takya, and
Helix Research Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                              Ota,T., Nishikawa,T., Suzuki,Y., Ishii,S., Saito,K., Kawaı,Y.,
Yamamoto,J., Wakamatsu,A., Nakamura,Y., Nagai,T., Suqano,S. and
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AU131978 NT2RP3 Homo sapiens cDNA clone NT2RP30033576 57, mPNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1532-3 Yana, Kisarazu, Chiba 292-0812, Japan
Tel: 81-438-52-3975
Fax: 81-438-52-3986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99.8%; Score 482; DB 9; 1
99.8%; Pred. No. 1.2e-142;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /db_xref="taxon:9666"
/clone-"NT2PP3003570"
/clone_lib="NT2RP3"
/cell_type="teratocarcinoma"
/cell_line="NT2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0, Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HRI human cDNA project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished (2000)
Contact: Takao Isogai
Genomics Laboratory
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AAGTGCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCAGGATACGGAC 437
                                                                                  GATAGTGTGTGTCCCCAAGGAAAATATATCCACCCTCAAAATAATTCGATTTGCTGTACC 377
                                         AAGTSCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGGCAGGATACGGAC 120
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AL522989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Li,W.R., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Ungublished (2001)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP 191 91006 EVRY cedex - France
Email: segref@genoscope.cns.fr, Web : www.genoscope.cns.fr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Genoscope
Genoscope - Centre National de Sequencage
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                                                                                                                                                                                                                                                                                 66.1
                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                      vector. Library was normalized. Library was constructed by Life Technologies. Contact: Feen Liang Life Technologies, a division of Invitrogen 9800 Medical Center Drive Pockville, Maryland 20850, USA Fax: (1) 301 610 8371 Email: fliang@lifetech.com_URL:
                                                                                                                                                                                                                                                                          http://fulllength.invitrogen.com"
231 c 229 g 177 t
                                                                                                                                                                                                                                                                                                                                                                                                                                 /note-"Organ: brain; Vector: pCMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-stranded cDNA was digested with Not I and cloned into the Not I and Eco RV sites of the pCMVSPORT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /tissue_type="neuroblastoma cells"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /db_xref="taxon:9606"
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                                                                                                                                                                                                                                                                                                                                                                                                                                    found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Plate. LLAM12711 row. g column: 14
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1. (bases 1 to 1070)
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High quality sequence stop: 669.
Location/Qualifiers
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BM546826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Robert Strausberg, Ph.D.
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National Institutes of Health, Mammalian Gene Collection (MGC)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Cone distribution: MGC_clone distribution information can
/note="Organ: Ovary (pool of 3); Vector: pcMV-SPORT6; Site 1: EcoRV (destroyed); Site 2: NotI; RNA source pool of three ovaries, from females ranging in age from 30 to 49 yo. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 2.1 kb, insert size range 1-3.5 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 036."
                                                                                                                                                                                                                          /lab_host="DH10B"
                                                                                                                                                                                                                                            /clone="IMAGE:5723557"
/clone_lib="NIH_MGC_125"
                                                                                                                                                                                                                                                                                                db_xref="taxon:9606"
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/organism="Homo sapiens"
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AGENCOURT_6415909 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:5531041
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mamala; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (basel to 994)
NIH-MGC http://mgc.nci nih gov/
National Institutes of Health, Mammalian Gene Collection (MGC)
Contact: Robert Strausberg, Ph.D.
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CDNA Library Arrayed by The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://maga.pl.nl.gov.
b.column: 62
High quality sequence stop: 654.
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                                                                                                                                  61 AAGTGCCACAAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCAGGATACGGAC 120
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                                                99.5%; Score 480.4; DB 13; Length 1070; 99.6%; Pred, No. 5e-142; attive 0; Mismatches 2; Indels 0;
   1 others
 224 t
                                                                                  0; Mismatches
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Tissue Procurement: ATCC
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311 €
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                                                                                       /note="Organ: uterus; Vector: pCMV-SPORTA; Sile 1: Noti; Site 2: Sall; Cloned unidirectionally. Primer: olion dr. Average insert size 2.1 Kb. " 3 others
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Mammalia, Eutheria, Primates, Catarihini, Hominidae, Homo.
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RP 191-91006 EVPY cedex - France
Email: segref@genoscope.cns.fr, Web : www.genoscope.cns.fr.
                                                                                                                                                                                                     DB 14; Length 994;
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               /clone="IMAGE:5531041"
/clone_lib="NIH MGC 71"
/tissue_type="lelomyosarcoma"
/lab_host="DH10B (phage-resistant)"
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Li,W B , Gruher, C , Jessee, J and Polayes, D. Full-length cDNA libraries and normalization Unpublished (2001)
                                                                                                                                                                                                     Query Match
97.6%; Score 471.6; DB 14
Best Local Similarity 99.2%; Pred. Mo. 3.1e-139;
Matches 474; Conservative 0; Mismatches 4;
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/db xref="taxon:9606"
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/db xref="taxon:9606"
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Unpublished (1999)
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/clone lib "LTI NPL00C PL2"
/tissue type="placenta"
/tissue type="placenta"
/hote="Vector pCMVSPCRT 6, Site_1. Not1; Ist strand cDNA
/hote="Vector pCMVSPCRT 6, Site_1 Not1; Ist strand cDNA
/hote-"Vector pCMVSPCRT 6, Site_1 Not1; Ist strand cDNA
was pinmed with a Not1-oligo(dT) primer. Five prime end
enriched, double-stranded cDNA was digested with Not I and
cloned into the Not I and Eco FV sites of the pCMVSPCRT 6
vector. Library was normalized. Library was constructed by
vector. Tebrary was normalized. Library was constructed by
Life Technologies. Contact: Feng Liang Life Technologies,
a division of Invitrogen 9800 Medical Center Drive
Rockville, Maryland 2089, UCA Fax: (1) 301 610 8371
Email: fliangslifetech.com URL:
http://fulllargth.invitrogen.com"
6 others
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Pred. No. 5.8e-138;
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                                                                                             TOOTGTAGTAAGTGTTAGAAAAGCCTGJAGTGCACGAAGGTTGTGCCTACCCCCAGATTGG
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Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyre Genomics, Inc.
Clone distribution. MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    found through the I.M.A.G.E. Consortium/LLWL at http://image.llnl.gov
Plate. LLAM11438 row: h column: 17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="Organ: pooled brain, lung, testis; Vector: p:MV-3F0FFE, Site 1: M:I, Site 2: E2_FV (3ext_yed), ENF source anonymous pool of 6 male brains, age range 23-27; male lung, age 27; and 1 male testis, age 69. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.8 kb, insert size arange 1-3 kb. Library is normalized and enriched for full length clones and was constructed by (Gruber (Invitrogen). Research Genetics tracking code and was constructed by (Gruber (Invitrogen).
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1 228 c 226 g 170 t
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/clone_lib="NIH_MGC_115"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="Organ" brain, Vertor pCMVSPOPT 6; lst strand cDNA was primed with a NoTI-oligo (dT) primer. Five prime end enriched, double-stranded cDNA was digested with Not I and cloned into the Not I and Bco RV sites of the pCMVSPORT 6 vector. Library was normalized, Library was constructed by Life Technologies. Contact: Feng Liang Life Technologies, a division of Invitrogen 9800 Medical Center Drive Rockville, Maryland 20850, USA Fax: (1) 301 610 8371 Email: fliangalifetech.com URL: Attp://fulllength.invitrogen.com.
                               AL529836 LTI_NFLOOT_NRC4 Homo sapiens cDNA clone CSODD005YP05 5
                                                                                                                                               Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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BP 191 91006 EVBY cedex - France
Email: seqretéagenoscope cns fr. Web : www genoscope.cns fr.
Location/Qualifiers
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                                                                                                                                                                                                              Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                  /tissue_type="neuroblastoma cells"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                            /clone_lib="LTI_NFL001_NBC4"
/sex="male"
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/db_xref="faxon.9404"
/clone="CSODD005YP05"
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                                                                            AL529836
AL529836.1 GI:12793329
                                                              prime, mRNA sequence.
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Best Local Similarity
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RESULT 10
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/tissue_type-"adenocarcinoma"
/tissue_type-"adenocarcinoma"
/lab host="bH10B (phage-resistant)"
/note="Organ: colon; Vector: pCMV-SPOPT6; Site i: Not:;
Site_2: Sall; Cloned unidirectionally. Primor: oliqo dT.
Site_1 insert size 1.8 kb. Library constructed by 13 for acchiological.
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Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euro)eostem,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 969)
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601448388F1 NIH_MGC_65 Homo sapiens CDNA Clon+ IMACES 4FSC-25 57,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EDNA Library Preparation: Life Technologies, inc. cDNA Library Arrayed by: The IM.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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92.2%; Score 450.4; DB 12; Length 99;
Best Local Similarity 99.6%; Pred. No. 1.8e 132;
Matches 462; Conservative 0; Mismatches 1; Indels 1; Gays
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http://image.llnl.gov
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
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/clone="IMAGE:3852525"
/clone_lib="NIH_MGC_65"
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High quality sequence stop: 775.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Robert Strausberg, Ph.D. Bmail: cgaphs romail.mlh.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Motaroa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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http://image.llnl.gov
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                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                  /tissue type="adenocarcinoma, cell line"
/lab_host="DH10B (phage=resistant)"
/note="Organ.liver, Wester.pCMV-SFCRT6; Site_1: Not1,
Site_2: Sall; Cloned unidirectionally; oligo-dT primed.
Average insert size 1.7 kb. Library enriched for
full-length clones and constructed by Life Technologies
Note: this is A NH MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone-"IMAGE:5404551"
/clone_lib="NIH_MGC_90"
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/db_xref="taxon-9606"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HRI human cfNA project (Cta,T., Wakamatsu,A., Ozawa,M., Ishii,S. Saito,K., Yamamoto,J., Nakamura,Y., Nishikawa,T., Nagai,T., Suzu,Y., Sugano,S., Isogai,T.)
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                                                                                                                                                                                                                                                                                                                                  Email: genomics@hri.co.jp
HRI human cDNA project; 5'- & 3'-end one pass sequencing: Helix
Research Institute, cLNA library construction: Department of
Virology, Institute of Medical Science, University of Tokyo, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genomics Laboratory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished (2000)
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Nakamura, Y., Nishikawa, T., Nagai, T., Suzuki, Y., Sugano, S. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AU105021 NTORMA Homo sapiens cDNA clone NTORM4000896 5', mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                            1532·3 Yana, Kisarazu, Chiba 292·0812, Japan
Tel: 81·438·52-3975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Helix Research Institute
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                                                                                                                                                                                                                                                                                                                   Research Institute
                                                                                                 /cull_line="NT2"
/note="Vector: pME18SFL3; mRNA from uninduced NT2 neuronal precursor cells"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Takao Isogai
                                                                                                                                                                                                                               /db_xref="taxon:9606"
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Pred. No. 1.4e-130;
                 Score 444.4,
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Conservative

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Mismatches

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Anote—"Organ: pooled lung and spleen; Vector: pCMV-SPORT6; Sire 1: Norl; Sire 2: EcoPV (destroyed); RNA source anorymous pool of 24 week female lung, i6 week female spleen; and 20-22 week male spleens. Library is oligo-dr primed and directionally cloned (EcoPV site is destroyed upon cloning). Average insert size 1.4 kb, insert size range 1-3 kb. Library is normalized and enriched for full length clones and was constructed by C. Gruber
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mRNA sequence.
BI769006
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 872)
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Tissue Procurement: Life Technologies, Inc.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I M A G E Consortium/LLNL at:
http://mage.llnl.gov
Plate: LLAM11520 row. p column: 16
High quality sequence stop: 784.
                                                                                                                                                                                                                                                                                                                                                                      181 AGCTGCTCCAAATGCCGAAAAGAAATGGGTGAGGTGGAGATCTTCTTGCACAGTGGAC 240
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                                                                                                          400 AAGTGCCACAAAGGAAGCTACTTGTACAATGACTGTCCAGGGCCGGGGCAGGATACGGAC 459
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National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
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/clone_lib="NIH_MGC_122"
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Saito,K., Yamamoto,J., Nakamura,Y., Mishikawa,T., Nagai,T., Susuki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostemi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
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Nakamura,Y., Nishikawa,T., Nagai,T., Suzuki,Y., Sucune,S. and
(Invitrogen). Research Genetics tracking code 028, No
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AU12446 NT2EM4 Homo sapiens cDNA clone NT2RM40001H 'Y', mENA
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Tel: 81-438-52-3975
Fax: 81-438-52-3986
                                                    this is a NIH MGC Library."
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Search completed: Jar Job time : 2254 secs

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GenCore version 5-13
Copyright (c) 1993 - 2003 Compugen Ltd.
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OM protein - protein search, using sw model

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January 6, 2003, 03.46.59 , Search time 33 Seconds (without alignments) 650.102 Million cell updates/sec

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Scoring table: sequence:

BLOSUM62 Gapop 10 0 , Gapext O.5

Searched:

908470 Total number of hits satisfying chosen parameters: 908470 segs, 133250620 residues

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

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Database .

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SUMMARIES

Description	Native 30 kD TNF i	Human soluble tumo	Soluble tumour nec	Tumour necrosis in	Human 30 kDa TNF i	Tumour necrosis fa	Tnfr1 protein, Un	TNF-R-GBPH fusion	Tumour necrosis fa	TBP(20-190)/hGG-be
ID	AAP27496	AAW59664	AAW52267	AAW89233	AAB37676	AAW89225	AARE6979	AAR70108	AAW89229	AAW33360
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ֆ Ըսբւy Match Length DB	161	161	161	161	161	211	280	309	311	336
å Çuery Match	1000	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Score	941	941	941	941	941	941	941	941	941	941
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Tumour necrosus fa		Tumour necrosis fa		TNF R GRP 130 fust	30kD TNF inhibiter	Human CORD TMF ban	TNF alpha binding	TAP Alpha colds and	Lambda derived TNF	pss TMF P. Benc c	Human tumount nector	Human tumour necto	Human tumour negre	Human TNFR 1. Hom	Human tumour neere	TNF R1 death recep-	Human TNFRP associ	Human tumour necto	Human 30 kDa TNF 1	Ruman tumour necto	Ξ	TNF R GRPH funtion	TNF R GRP 140 fusa	2	[-] -	TNF R ERA 175 fush	Human Tumour Neere	Mutant p55 tumour	Mutant p55 tumour	Ε	Mutant p55 tumour	Type I TNF receptor	Human Fas protein.
AAW89228 AAR07449	-	AAW89226	·		. AAR10986		. AAR20787	. AAR24000		. AAR75084	AAY30934	AAH36266	AAB37800	AAB26984	AAB23446	AAB01336		: AAB36697		ABB81649		. AAP70194	. AAR70109		. AAR70106	. AAP70105	AAR07451	. AAP51032	AAR51033	-		: AAR12550	AAW64485
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ALIGNMENTS

New ethylene glycolated polypeptide(s) with improved pharmacokinetic properties - for treating e.g. TNF and H. I Pumour necrosis factor, ethylene glycol, pharmokinetic, adult respiratory distress syndrome, rhoumatoid arthritis, septic shock, pulmonary fibrosis, spacer. Thompson RC; Evans PJ, Kohno T, AAR27496 standard; protein; 161 AA 92WO-US02122. 922280-S026 9111S-0669862 Native 30 kD TNF inhibitor. 09-MAR-1993 (first entry) Armes LG, Brewer MT, (SYND) SYNERGEN INC. WFI, 1992-348933/42. 13 MAR-1992; 15-MAR-1991; Homo sapiens 17.JAN 1992; W09216221-A. 01-OCT-1992. AAR27496; RESULT 1 AAR27496

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                                     N-PSDB; AAV41548
                                                                                                                           Bendele AM,
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23-JAN-1997;
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                                                                                                                                                                                                                                               1997;
                                                                                                                                                                                       AMGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 161 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                           Edwards
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                       INC.
                                                                                                                                                                                                                                                                         96US-0032587
97US-0036355
                                                                                                                                                                                                                                                   97US-0039315
                                                                                                                                                                                                                                                                                                                                     97US-0052023
                                                                                                                                                                                                                                                                                                                                                                                                    97WO-US22733.
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                                                                                                                           Ç,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 941; DB 13; 100.0%; Fred. No. 2.4e-67;
                                                                                                                           Sennello RM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ß
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
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RESULT 3
AAW52267
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Best Local
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                                                                                                                                                                                                                 04-MAR-1997;
09-JUL-1996;
06-DEC-1996;
23-JAN-1997;
07-FEB-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Soluble tumour necrosis factor receptor; sTNFR; TNF mediated disease; tumour necrosis factor binding protein; autoimmune disease; arthritis; adult respiratory distress syndrome; cachexia/ancrexia; cancer; therap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This is the amino acid sequence of the human tumour necrosis factor receptor type I, used in the method of the invention involving the treatment of acute or chronic inflammatory disease such as leukaemia treatment of acute or chronic inflammatory disease such as leukaemia
                                           adult respiratory distress syndrome
                                                        Truncated and soluble forms of tumour necrosis factor receptor useful for treating diseases involving factor, e.g. arthritis \epsilon
                                                                                                         N-PSDB; AAV19801
                                                                                                                          WPI; 1998-101052/09
                                                                                                                                                                                                                                                                                                                                            15-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                           W09801555-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Soluble tumour necrosis factor receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW52267;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW52267 standard; Protein; 161 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   by administering tumour necrosis factor binding protein and at least one additional anti-inflammatory drug, e.g. methotrexate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Fig 1; 104pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           one additional anti-inflammatory drug, e.g. methotrexate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Treatment of acute or chronic inflammatory disease, e.g. leukaemia by administering tumour necrosis factor binding protein and at leas
                                                                                                                                                       Edwards CK,
                                                                                                                                                                                      (AMGE-) AMGEN INC
                                                                                                                                                                                                                                                                                                              09-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 KONTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KONTYCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVIILSCQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCSKCRKEMGQVEISSCTVERDTVCGCRKNOYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLKHCL 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         161; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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                                                                                                                                                       Fisher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                  96US-0021443.
96US-0032534.
97US-0037737.
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                                                                                                                                                                                                                                                                                 97US-0039792
                                                                                                                                                                                                                                                                                                              97WO-US12244
                                                                                                                                                                                                                                                                                                                                                                                                                                     syndrome; graft rejection; Alzheimer's disease;
                                                                                                                                                                                                                   -0039314
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                                                                                                                                                       Kieft GL;
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Pred. No. 2.4e-67;
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                                                            and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                       therapy;
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Claim 1; Fig 1; 205pp; English

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SITMER) The protein was used to make the truncated STMER proteins of the invention. The truncated STMER proteins and tumour necrosis factor binding proteins (TNBP) are used to treat any TMF mediated disease, of arthritis, adult respiratory distress syndrome, cachexia/anorexia, cancer, chronic fatigue syndrome, graft rejection, Alzheimer's disease and other autoimmune diseases. Cells transformed with a vector containing DNA encoding the protein may be used for production of recombinant STNFR, which may also be used for measuring the amount of STNFR in samples and to raise antibodies against STNFP TNRP may also be used in preparation of therapeutic compositions for treating the above diseases. The STNFP proteins are well suited to large scale production (since they lack the deamidation site in region III-126, so are more stable in vivo); contain the west distulphide bonds and fewer epitopes, making them less antigenic
This sequence is the human soluble tumour necrosis factor receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    than full-length proteins.
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161 AA; Sequence

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                                                                                                                                                              61 SCSKTPKEMGQVFISSTTVDPDTVGGCPKNQYPHYWSENLFQ?FNGSLCLNGTVHLSCQE 120
                                                                                                                                                                                                       61 SCSKORKEMGQVEISSCTVDPDTVCGCRKNQYPHYWSENLFQOFNGSLCLNGTVHLSCQE 120
                                          0; Gaps
                                                                                 1 DOVCEDGENTHPONNSIGETERMENTYLYNDEPGPGGETEGPRESGSFIASENHLPHEL 60
                                                                                                                        1 DSVCPQGKYTHPQNNSICCTKCHKGTYLYNDCPGPGGDTDCPECESGSFTASENHLPHCL KA
  100.0%; Score 941; DR 19; Length 161; 100 0%; Pred No. 2 46.67;
                                          Indels
                                                                                                                                                                                                                                                                   121 KONTVOTOHAGPFIPENEOVSCSNOWKSLECTMLCLPQIEN 161
                                          .,
                                        0; Mismatches
                                      Matches 161; Conservative
                 Local Similarity
Query Match
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Tumour necrosis inhibitor 30 kDa protein. AAW89233 standard; Protein; 161 AA. 04 MAR-1999 (first entry) AAW89233; RESULT 4 AAW89233

Tumour necrosis factor receptor 1, TNFR-1; inhibitor; osteoprotegerin, OPG; chimeric; fusion; dimerisation domain; autoimmune disease; inflammation; apoptosis.

WO9849305-A1

05-NOV-1998.

29-APR-1998;

97US 0850188 01 - MAY - 1997;

98WO - US08631,

(AMGE) AMGEN INC.

WPI; 1999-034661/03.

Boyle WJ, Wooden S;

N PSDB: AAV81732,

New chimeric osteoprotegerin polypeptides - contain the osteoprotegerin dimerisation domain and a heterologous sequence, useful to treat TNF and TNFR-mediated disorders

Disclosure, Fig 2, 92pp, English

The present invention describes a chimeric polypeptide (A1), comprising

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are used to treat TNF and TNFP-mediated disorders such as inflammation, autoimmune diseases and disorders related to excessive apoprosus. The chimeras are also useful for detecting molecules which interact with fused hererologous sequences to identify potential new receptors and ligands. The present sequence represents the TNF inhibitor 30 kbs.
                     amino acid sequence. Also described are: (1) a multimer polytopis decomprising covalently associated Al monomers; (2) an isolated mucles acid encoding Al; (3) an expression vector comprising the nucleic acid esquence; and (4) a host cell transformed or transfected with the expression vector so that the nucleic acid is expressible. The products from the present invention are useful to treat a variety of disorders including those related to receptor binding. Compositions computations tumour necrosis factor (TNF)/OPG and TNF receptor (TNF)/OPG chimeras
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel 30 kDa tumor necrosis factor inhibitor analog comprising a non-native systeine residue cross linked with polycthylone q^{\dagger}\gamma\cos l, useful for treating inflammatory and degenerative diseases mediated by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TNF inhibitor; antiinflammatory, Tumour Recrosis Factor; interleakin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 DSVGPQGKYTHPQNNSTGCTRCHPGTYLYNNGTGTPGFEGEEGGEFTACENHERRATE KO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      an esteoprotegerin (OPG) dimerisation domain fused to a heterologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100 0%; Score 941; DB 20; Length 161;
100.0%; Pred. No. 2.4e-67;
tive 0; Mismatches 0; Indels 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 KONTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQ1EN 161
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB37676 standard; protein; 161 AA
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93US-0090366.
89US-0381080.
89US-0450329.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human 30 kDa TNF inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-MAR-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 161; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   King MW,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            161 AA;
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11-DEC-1989;
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RESULT 6
AAW99225
ID AAW6
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DT 04-N
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XX Upg
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4
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                                                    an osteoprotegerin (OPG) dimerisation domain fused to a heterologous amino acid sequence. Also described are: (1) a multimer polypeptide comprising covalently associated Al monomers; (2) an isolated nucleic acid encoding Al; (3) an expression vector comprising the nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                             New chimeric osteoprotegerin polypeptides - contain the osteoprotegerin dimerisation domain and a heterologous sequence, useful to treat TNF and TNFR-mediated disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to Tumour Necrosis Factor (TNF) inhibitors (see AAB37676 and AAB37685), which have TNF inhibitory activity. The novel TNF inhibitors of the present invention are useful as therapeutic agents for inhibiting the activity of TNF and interleukin (IL-1), and for treating inflammatory and degenerative diseases mediated by TNF. The
          sequence; and (4) a host cell transformed or transfected with the
                                                                                                                                                                                                                                                      The present invention describes a chimeric polypeptide (A1), comprising
                                                                                                                                                                                                                                                                                                                                                         Example 1; Fig 4; 92pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1999-034661/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Boyle WJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-NOV-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tunion necrosis factor receptor 1; TNFR-1; inhibitor; osteoprotegerin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tumour necrosis factor bp/osteoprotegerin construct TNFbp 4.0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               04-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW89225 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (AMGE-) AMGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30 kDa TNF inhibitor can inhibit TNF alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KUNTVITCHAGEFLEENECVSCSNCKKSLECTKLCLPQIEN 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DSVCP_SKYTHE_DNNSTCCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCSKOPKEMG@VEISSOTVOPPOTVOGORKN@YPHYWSENLFQCFNCSLCLNGTVHLSCQE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Wooden S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         161 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    apoptosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         fusion,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A 108-0450188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98W0-US08631.
                                                         (3) an expression vector comprising the nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         dimerisation domain, autoimmune disease
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Fred. No. 2.4e-67,
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 161;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB66979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bune loss, osteoprotegerin, CPG, rheumatoid aithiitis; hyperalgesia; multiple sclerosis; osteoprotesis; osteomyetitis; asthma; inflammation; systemic lupus crythematosus; graft-versus-host disease; septic shock; acute pancreatitis; Alzheimer's disease; anorexia; atheroscierosis; pain; coronary condition; myocardial infarction; cancer; diabetes; psoriasis;
                                                            Treating conditions leading to bone loss such as rheumatoid arthritis, multiple sclerosis and asthma, comprises administering an osteoprotegerin protein in conjunction with e.g. inhibitors of
                                                                                                                                                                                                                                                            09-JUL-1999;
                                                                                                                                                                                                                                                                                                 07-JUL-2000; 2000WO-US18667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              autoimmune diseases and disorders related to excessive apoptosis. The chimeras are also useful for detecting molecules which interact with fused heterologous sequences to identify motential new receptors and ligands. The present sequence represents a TNFbp/OPG constituct from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  are used to treat TNF and TNFR-mediated disorders such as inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     from the present invention are useful to treat a variety of disorders including those related to receptor binding. Compositions comprising tumour necrosis factor (TNF)/OPG and TNF receptor (TNFR)/OPG chimeras
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         expression vector so that the nucleic acid is expressible.
                                                                                                                                      WPI; 2001-103031/11
                                                                                                                                                                       Boyle WJ,
                                                                                                                                                                                                            (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                             09-DEC-1999;
                                                                                                                                                                                                                                                                                                                                    18-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                       W0200103719-A2
                                                                                                                                                                                                                                                                                                                                                                                                       Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                        endometriosis; fever; glomerulonephritis; inflammatory bowel disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAB66979;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB66979 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the example of the present invention for creating TNFbp/OPG fusion
                                                                                                                                                                                                                                                                                                                                                                                                                                      ischaemia; Parkinson's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              161
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KONTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                      Lacey DL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              211 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                             99US-0457647
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                                                                                                                                                                       Calzone FJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                          disease
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Pred. No. 3.1e-67;
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                                                                                                                                                                       Chang M,
                                                                                                                                                                       Senaldi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 211,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
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Disclosure; Fig 2; 316pp; English

interleukin and tumor necrosis factor alpha

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The present invention relates to a method for treating conditions leading to bone loss. The method comprises administering a purified and isolated astrophysegrin (APS7886-AAR57888 and AAR6694-AAR65966) in conjunction with other substances such as tumour necrosis factor-alpha (TNF-alpha) inhibitors, interleukin (IL)-6, -8 and -18 inhibitors, ICE modulators, fibroblast growth factor (FGF)1-10 modulators and/or platelet activating factor (PAF) antagonists. The method is useful for treating sclerosis, osteomyelitis and asthma. The method is also useful for treating inflammation, systemic lupus erythmatosus (SLE) and graft-versus-host disease (GMP). Other diseases that can be treated include acute pancreatitis, Alzheimer's disease, anorexia,
                                                                                                                                                                                                                                     atherosclerosis, coronary conditions (e.g. myocardial infarction), cancer, diaheres, endometriosis, fever, glometrulonephritis, hyperalgesia, inflammatory bowel disease, ischaemia, pain, Parkinson's disease, proriasis and septic shock. The present sequence was used in a sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hybrid peptide, malaria parasite, Plasmodium falciparum, fusion protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              101 SCSKYPKFMGQVEISSKTVDRDTVCGCPRNQYRHYMSENLPQCFNCSLCLNGTVHLSCQE 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41 DSVCPQCKYTHPQNNSTCCTKCHKGTYLYNDCPGPGQDTDCPEGSGSFTASENHLPHCL 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 SCSKCPKFMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGPTDTPCRECESGSFTASENHLPHCL 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             red blood rell; cyrokine receptor; glycophorin binding peptide 130; GBP 130; GBPH; glycophorin binding peptide homologue; glycophorin A; tumour necrosis factor receptor; TNF-R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /label= repeat_region
/note= "can be repeated n times, where n is a real
                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 941; DB 22, Length 280, 100.0%; Pred. No. 4e-67;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 FUNTO TCHASEFIRENECUSCONCKKSLECTKLCLEDGIEN 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     161 KONTVOTOHAGFFI,PENFOVSOSNOKKSLEOTKLOLPQIEN 201
                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. 4e-67;
                                                                                                                                                                                                                                                                                                                                                                                                                                    0, Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR70108 standard; Protein; 309 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chimeric Homo sapiens.
Chimeric Plasmodium falciparum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                number"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94GB-0017021.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94WO-GB01900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10.NOV 1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TNF-R GRPH fusion protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 161, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (PREN/) PRENDERGAST K F.
                                                                                                                                                                                                                                                                                                                      homology comparison,
                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                         280 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Prendergast KF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01 SEP 1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-SEP 1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23 AUG 1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-MAR 1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9506737-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR70108;
                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 8
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Hybrid peptides for binding cytokines, comprising a malaria parasite.

(Plasmodium falciparum) peptide (capable of binding to a red blood cell (RBC)) and a receptor peptide are claimed. AAR70103 35 are examples of these hybrid peptides. AAR70109 is a fusion of tumour necrosis factor and syrophoria binding protein (GBP) homologue (GBPH). The and syrophoria binding protein (GBP) homologue (GBPH). The use of cytokine receptors not normally found on RRGs means that the cytokine can bind harmlessly to the RBC without deleterious effect.

Cytokine can bind harmlessly to the PBC without deleterious effect.

The RBC proceets the hybrid peptides from excretion from the kidney, and use to steric hindrance prevents the cytokines binding to a receptor in another cell. GBP 130 or GBPH are the prefd. malaria parasite poptides used, others include EBA 175 (175 kba erythocyte binding antiqen), PMMSA (pre major merczoite surface antiqen) and the Duffy binding receptor molecule (eg. exhibited by Plasmodium vivax). These peptides contact of buff to pref. Bytoproteins, found on the surface of PBCs. The hybrid peptides are thus used to lower the levels of free cytokines in the circulation to reduce pathological damage.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tumour necrosis factor receptor 1, TNFR 1, inhibitor, osteoprologorum, OPG, chimeric, fusion, dimerisation domain, autoimmuno discase,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 SCSKCRKEMGQVETSSCTVPPPTVQ4/PKNQYPHYWSENLFQ2FNGSLCLNG1VHLSCQB 1.10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      o; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGFGQDTDCRECESGSFTASENHLFHCL, AN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20 PSVCPQGRYTHPQNNSICCTFCHRCTYLVNDCPSPGGOTDCPECESGSFTASENHLAHCL 7.9
                                                      New hybrid peptide(s) for binding cytokine(s) - comprising a malaria parasite peptide capable of binding a red blood cell and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 941; DB 16; Length (09; 100.0%; Pred. No. 4.4e-67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tumour necrosis factor bp/osteoprotegerin construct TNFbp/304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   140 FQNIVCTCHAGFFLRENECVSCSNCKKSLECTKL/T.PQ1FN 1P0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 KONTVCTCHAGFFLPENECVSCSNCFFSLFCTFLCLPQIEN 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                   Example A; Page 54-55; 93pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW89229 standard; Protein; 311 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-MAR-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 161; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            inflammation; apoptosis.
                  WPI; 1995-115452/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                               a receptor peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      309 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W09849305-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-APP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-NOV-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW89229;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
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RESULT 10
AAW3360
ID AAW33
XX AAW33
XX 19483
DT 19-MA
XX PHS-10
KW Beta
XX Beta
XX Homo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       define acid sequence. Also described are: (1) a multimer polypeptide comprising covalently associated Al monomers; (2) an isolated nucleic acid encoding Al; (3) an expression vector comprising the nucleic acid sequence; and (4) a host cell transformed or transfected with the confirmation for the present invention are useful to treat a variety of disorders including those related to responsible. The products from the present invention are useful to treat a variety of disorders including those related for responsibilities comprising are used to treat TNF and TNFF mediated disorders such as inflammation, autonomous diseases and disorders related to excessive apoptosis. The fused heterologous sequences to identify potential new receptors and ligands. The present sequence to identify potential new receptors and ligands. The present sequence represents a TNFby/OpG construct from the unit of the first present invention for creating TNFFy/OpG fusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Campbell RK.
                                                                           70-EEB-1996;
                                                                                                               20-FEB-1997;
                                                                                                                                                    21-AUG-1997
                                                                                                                                                                                          W09730161-A1
                                                                                                                                                                                                                                                                beta subunit; hCG-beta.
                                                                                                                                                                                                                                                                                                                       TBP(20-190)/h0G-bera fusion protein
                                                                                                                                                                                                                                                                                                                                                               19-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                     AAW33360;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 1, Fig 4, 92pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New chimeric osteoprotegerin polypeptides - contain the 
osteoprotegerin dimerisation domain and a heterologous sequence 
useful to treat TNF and TMFR-mediated disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Boyle WJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention describes a chimeric polypeptide (A1), comprising an estempeath (CPS) dimerisation domain fused to a heterologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10 F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41 DSVOT (DWITHE JANSIOCIKCHKSTYLING DEGLEGODDGREGESSETASENHLAHCL 100
                                                                                                                                                                                                                                                                                       CENTRACTOR AND
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KANTYONITHAGEFILEENEGVØGENGKKSLEGTKLGIPQIEN DO1
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                                     WE'S WELLIED BES SYSTEMS HOLDING MY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dimilarity
                                                                                                                                                                                                                                                                                                                                                                                                                                      standard; Protein; 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CENEMOCAELSSCIAGEDIAGEMARKEMARKEMARGEDIAGENICS CONTRACTOR 100
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         311 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                               (first entry)
Chappel SC,
                                                                           96US-0011936.
                                                                                                               97WO-US02315
                                                                                                                                                                                                                                                                                   threshop-letin; TPO; human cheriunic genadotrophin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 941; DB 20;
Fred. No. 4.4e-67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 311;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A novel fusion protein comprises 2 dimer forming co-expressed amino acid sequences, each consisting of a homodineric or heterodimeric receptor chain or ligand, with ligand-receptor binding activity, bound directly or via a peptide linker to a subunit of a heterodimeric protein hormone capable of forming a heterodimer with the hormone's other subunits. The fusion protein, e.g. the
New chimeric osteoprotegerin polypeptides - contain the
                                   WPI, 1999 034661/03
                                                                   Boyle WJ,
                                                                                                                                     01-MAY-1997;
                                                                                                                                                                                                        05-NOV-1998
                                                                                                                                                                                                                                        WC9849305-A1
                                                                                                                                                                                                                                                                                                                                      Tumour necrosis factor receptor 1; TNFR-1; inhibitor; osteoprotegerin; OPG; chimeric; fusion; dimerisation domain; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                        Tumour necrosis factor bp/osteoprotegerin construct TNFbp/248.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW89228 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     component, reducing the requirement for hormone itself and the number of injections needed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    thrombopoietin (TPO)/human chorionic yonadotrophin-beta subunit (hCG-beta) fusion protein denoted by the present sequence, significantly increases the biological activity of the hormone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hybrid dimeric protein comprising two co-expressed units - each based on receptor or ligand and a subunit of a heterodimeric hormone, especially FSH, for inducing follicular maturation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N FSDB; AAT94022
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                                                                                                     (AMGE-) AMGEN INC
                                                                                                                                                                     29-APR-1998;
                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example; Pages 39-40; 60pp; English.
                                                                                                                                                                                                                                                                                                                        inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                143 KONTVOTCHAGFFLEENECVSCSNCKKSLECTKLCLPQIEN 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.1 HOMTVOTCHAGEFERENEOVSCSMOKKSLECTKLOLPQIEN 161
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 DSVCPQGKYTHPQNNSICCTKCHKGTYLYNDGPGPGQDTDGREGEEGSGFTASENHLRHCL 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SISK IF KEMUNVEISSCTVDRDTVOGCKKINNKKHYWSENLFWCENCSLCLNGTVHLSCVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DSVCPQGKYTHPQNNSTCCTKCHKGTYLTNDCPGPGQDTDCRECESGSFTASENHLRHCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    161;
                                                                   Wooden S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     336 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                          apoptosis
                                                                                                                                      97US-0850188
                                                                                                                                                                      98WO-US08631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 941; DB 18; 100.0%; Fied. No. 4.7e-67,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
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                                                                                             The present invention describes a chimeric polypeptide (A1), comprising an osteoprotegerin (OPG) dimerisation domain fused to a heterologous amino acid sequence. Also described are: (1) a multimer polypeptide comprising covalently associated A1 monomers; (2) an isolated nucleic acid encoding A1, (3) an expression vector comprising the nucleic acid encoding A1, (4) an expression vector comprising the nucleic acid sequence; and (4) a host cell transformed or transfected with the
                                                                                                                                                                                                                     expression vector so that the nucleic acid is expressible. The products from the present invention are useful to treat a variety of disorders including those related to receptor binding. Compositions comprising tumour necrosis factor (TNP)/OPG and TNF receptor (TNPP)/OPG chimeras are used to treat TNF and TNFR-mediated disorders such as inflammation,
                                                                                                                                                                                                                                                                                                                          autoimmune diseases and disorders related to excessive apoptosis. The chimeras are also useful for detecting molecules which interact with fused heterologous sequences to identify potential mew receptors and liquids. The present sequence represents a TNFbp/OPG construct from the example of the present invention for creating TNFbp/OPG fusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41 DSVCPQGKYTHPQNNSTCCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCSKOPKFMGQVF1SSCTVDPOTVGGPKNQYPHYWSENLFQCFNGSLCLNGTVHLSCQE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 DSVCPPGSKYIHPDNNSIGGTKCHKGTYLYNDCPGPGQDJDCRECESGSFTASENHLRHCL 60
osteoprotegerin dimerisation domain and a heterologous sequence, useful to treat TNF and TNFR mediated disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 941; DB 20; Length 366; 100 0%; Pred. No. 5.10-67; ive. 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tumour necrosis factor binding protein; TNF-BP; TNF-receptor; pTNF BP15; infectious disease; parasitic disease; cachexia; autoimmune disease; shock.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tumour Necrosis Factor-Binding Protein from pTNF-BP15 cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hauptmann R, Himmler A, Maurer-Fogy I, Stratowa C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 RONTVOTONAGEFURENBOVSCONCEPSLECTFLOLEDQUEN 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16.1 POWTVOTCHAGFFLRENECVSCSNOWYSLEGTKLCLPQIEN 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAR07449 standard; protein; 371 AA
                                                           Example 1; Fig 4; 92pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (ROFH ) ROEHRINGER INGELHEIMINT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90EP-0106624.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29 JAN-1991 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 161; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1990-321987/43.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Loral Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      366 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N. PSDR; AAQ06282.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-APR 1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21 JUN-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24 - OCT 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EP393438 A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAR07449;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
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The present invention describes a chimetic polypeptide (A)), comprision
                                                                                         Clone pTNF-BPIS was used to contruct pADTNF-BP, for transfection of e.g. CNS7 cells. The expressed proteins are useful prophylactically and therapeutically to control disorders which involve the damaging effects of TNF-alpha or -keta (e.g. infectious or parasitic diseases, shock, cachexia, autoimmune diseases, adult TNG-alpha). They can also be used as diagnostic reagents for assaying TNF and in study of TNF-receptor interactions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tumour necrosis factor receptor 1, TNFR-1; inhibitor; esteoprotequin; OPG; chimeric; fusion; dimerisation domain; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                          41 DSVCP2GKYIHPQNNSICCTECHK3TYLYNP~P5P=404TGCBSGSFTASENHLRHC11
                                                                                                                                                                                                                                                                                                                                                                                                                                             SCSKOPPEMOQVEISSCTVDPDTVTTFFHQYRHYMGENLEGOFNCSLOLMGTVHLGTDE 1224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               101 SCSKORKEMGQVEISSCTVORPITVCGCPKNGYRHYWSENLFQCFNCSLCLNGIVHLSCOF 1623
                                                                                                                                                                                                                                                                                                                                                                          1 DSVCPQGKY1HPQNNSIOCTKCHKGTYLRNIN POPOLETRERCESGSFTASENHIRIP 1, 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New chimeric osteoprotegerin polypeptides - contain the osteoprotegerin dimerisation domain and a heterologous sequence, useful to treat TNF and TNFR-mediated disorders
                                                                                                                                                                                                                                                                                                      100 0%; Score 941; DB 11; Length 371;
100 0%; Pred. No. 5.2e-67;
tive 9; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tumour necrosis factor hp/osteoprotegerin construct TNFbp/217
              used in
                              tumour treatment and to understand mechanismsm to TNF action
              DNA encoding TNF binding protein and TNF receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 KONTVCTCHAGFFLRENECVSCSNCKKSLBCTKLCLPQIEN 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 161 KONTVCTCHAGFFLPENECVSCSNCKKSLFCTKLCLFGLEN 201
                                                                Disclosure; Fig 1(1-3); 51pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW89227 standard, Protein, 297 AA
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                                                                                                                                                                                                                                                                                                                        Best Local Similarity 100 /
Matches 161; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             inflammation; apoptosis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-034661/03.
                                                                                                                                                                                                                                                                       371 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (AMGE-) AMGEN INC.
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                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                        Query Match
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AAW89226
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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Best Local
                                                                                                                                                                                                                 New chimeria esteoprotegerin polypeptides - contain the osteoprotegerin dimerisation domain and a heterologous sequence, useful to treat TNF and TNFR-mediated disorders
                                                                Example 1; Fig 4; 92pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WF1; 1999-034661/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Boyle WJ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              atch 100.0%, Score 941, DB 20; cal Similarity 100.0%, Fred. No. 5.5e-67, 161, Culvervative 0, Mismatches 6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wooden S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                397 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention describes a chimeric polypeptide (A1), comprising an osteoprotegerin (OPG) dimerisation domain fused to a heterologous amino acid sequence. Also described are: (1) a multimer polypeptide comprising covalently associated A1 monomers; (2) an isolated nucleic acid encoding A1; (3) an expression vector comprising the nucleic acid sequence; and (4) a host cell transformed or transfected with the expression vector so that the nucleic acid is expressible. The products from the present invention are useful to treat a variety of disorders including those related to receptor binding. Compositions comprising tumour necrosis factor (TNF)/OPG and TNF receptor (TNFR)/OPG chimeras are used to treat TNF and TNFR-mediated disorders such as inflammation, autoimmune diseases and disorders related to excessible increases.
                                 New chimeric osteoprotegerin polypeptides - contain the osteoprotegerin dimerisation domain and a heterologous sequence, useful to treat TNF and TNFR-mediated disorders
                                                                                                                  WPI; 1999-034661/03.
                                                                                                                                                        Boyle WJ, Wooden S,
                                                                                                                                                                                                                                     01-MAY-1997;
                                                                                                                                                                                                                                                                           29-APR-1998;
                                                                                                                                                                                                                                                                                                                   05-NOV-1998
                                                                                                                                                                                                                                                                                                                                                          WO9849305-A1
                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                         inflammation; apoptosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPG; chimeric, fusion; dimerisation domain, autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tumour necrosis factor receptor 1, THER 1, inhibitor,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tumour necrosis factor bp/osteoprotegerin construct TNFbp/OPG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-MAR-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW89224;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW89224 standard; Protein, 420 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      procerns
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     fused heterologous sequences to identify potential new receptors and ligands. The present sequence represents a TNFbp/OFG construct from the example of the present invention for creating TNFbp/OFG fusion
                                                                                                                                                                                                (AMGE-) AMGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   chimeras are also useful for detecting molecules which interact with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           101
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KONTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KONTVOTCHAGEFLEENECVSCSNCKKSLECTKLCLEQIEN 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCSKCRKEMGQVEISSCTVDRDTVCGCPKNQYPHYWSENLFQCFNCSLCLNGTVHLSCQE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                417 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                     97US-0850188
                                                                                                                                                                                                                                                                             98WO-US08631.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 941; DB 20; 100.0%; Pred. No. 5.8e-67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
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Example 1; Fig 4; 92pp; English

an osteoprotegerin (OPG) dimerisation domain fused to a heterologous amino acid sequence. Also described are: (1) a multimer polypeptide acid encoding A1; (3) an expression vector comprising the nucleic acid encoding A1; (3) an expression vector comprising the nucleic acid sequence, and (4) a host cell transformed or transfected with the expression vector so that the nucleic acid is expression. The products from the present invention are useful to treat a variety of disorders uncluding those related to receptor binding. Compositions comprising tumour necrosis factor (TMP)/OPG and TMF receptor (TMPR)/OPG chimeras are used to treat TMF and TMF-mediated disorders such as inflammation, The present invention describes a chimeric polypeptide (A1), comprising autoimmune diseases and disorders related to excessive apoptosis. The chimeras are also useful for detecting molecules which interact with fused heterologous sequences to identify potential mew receptors and liquads. The present sequence represents a TNFbp/OPG construct from the example of the present invention for creating TNFbp/OPG fusion proteins

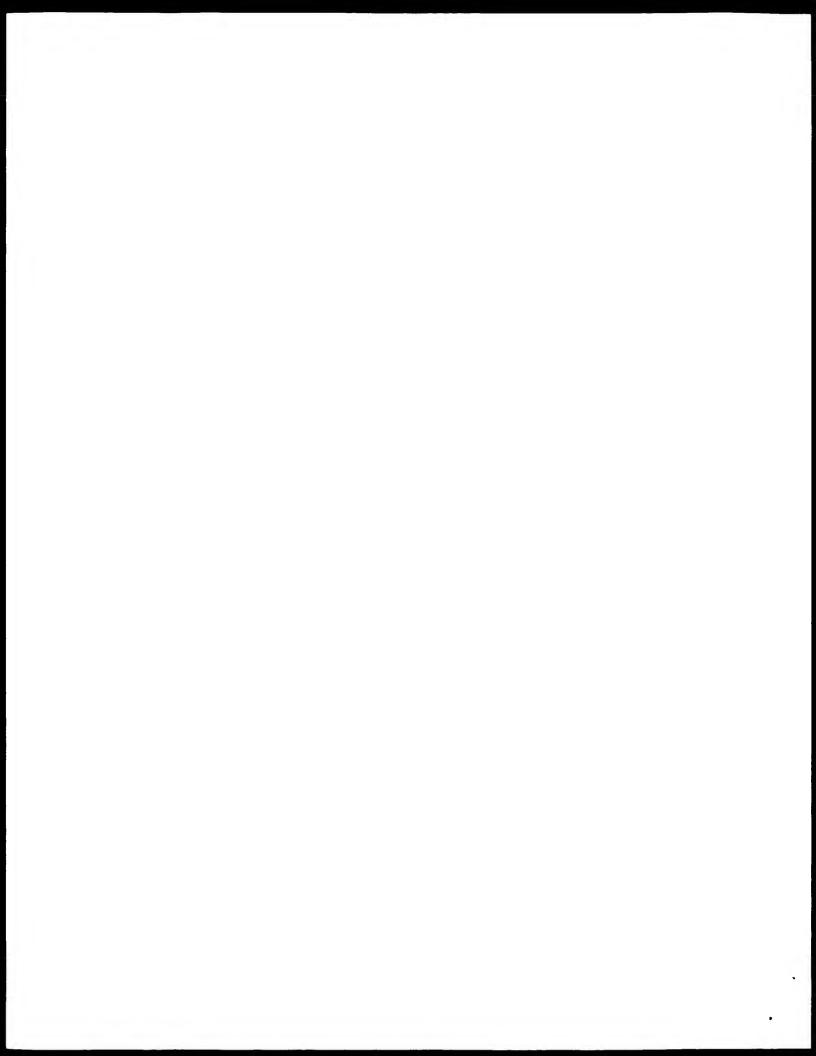
420 AA; Sequence

·; 0; Gaps 1 DSVCPQGKYIHPQNNSICCTKGHKGTVLYNDCPGPGQDTDGREGESGSFTASENHLRHCL 60 100.0%; Score 941; DB 20; Length 420; 100.0%; Pred. No. 5.8e-67; Live 0; Mismatches 0; Indels 0; Matches 161; Conservative Rest Local Similarity Query Match

41 DSVCFPGGKYTHPQNNSTC^TK~HKGTYLVNDCPSPSQDTDCPECESGSFTASENHLRHCL 190 á ò

161 KONTVOTOTHAGEFLRENEGVSGSNOKKSLEGTKLCLPOIEN 201 ે

Search completed: January 6, 2003, 03:57:45 Job time : 41 secs



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Genfore version 5-13
Copyright (c) 1992 - 2003 Compugen Ltd.
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protein search, using sw model OM protein January 6, 2003, 03:57:07; Search time 17 Seconds Run on:

(without alignments) 278.652 Million cell updates/sec

US-09-882-735-2 Perfect score;

OSNOKKSTROTKLOLPQIEN 16 1 DSVCPQGKYIHPQNNSICCT Sequence.

BLOSTMA2 Gapop 10 0 , Gapext O S Scoring table:

262574 seqs, 29422922 residues Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database:

Issued_Patents_AA:*

/cqn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cqn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cqn2_6/ptodata/1/iaa/6A_COMB.pep:*
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/cqn2_6/ptodata/1/iaa/ptTUS_COMB.pep:*
/cqn2_6/ptodata/1/iaa/ptTUS_COMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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		o s e			SUMMARIES	
Result No.	3001 e	Ouery Match	Lengt h	E B	10	Description
-	941	100.0	161	. 4	US 09 326-394 2	Sequence 2, Appli
r.	941	100 0	280	~	476-89.	
~	941	100.0	280	4	- 1	46
4	941	100 n	280	4	11S-08-795-447A-46	46
Ş	941	100.0	280	4	US-08-974-186-46	46,
÷	941	100 0	280	4	US-08-795-446B-46	
	941	100 0	0 M C	4	US-08-706 945D-132	132,
Œ	941	100.0	336	4	US-08-804-166-8	
6	941	100.0	386	4	US-08-910-991-8	Sequence 8, Appli
10	941	100.0	455	7	050	5
1.1	941	100.0	455	~	-08-321	c i
1.2	941	100.0	455		137.	Sequence 2, Appl:
1 3	941	100 0	455	۲.	US OR-126-016 2	ci
14	941	100.0	455	C1	08-465	Sequence 25, Appl
1.5	941	100.0	455	4	US-08-815-469-5	2
16	941	100.0	455	4	-60-	'n
1.1	941	100.0	455	4	US-09-527-236A 5	Sequence 5, Appli
18	941	100.0	455	4	US-08-054-970-2	2,
19	941	100 0	455	4	118-09-565-918-4	4
2.0	941	100.0	455	4	-00	m
21	930.5	6.86	606	4	US-09-013-895A-4	4
22	930.5	98.9	606	4	US-09-448-868-4	4
23	928	98.6	285	4	US-08-804-166-6	Sequence 6, Appli
24	928	98.6	285	4	US-08-910-991-6	9
r.	925.5	98.4	453	4	US-09-086-483A-5	s,
5.6	924	98.2	199	~	-020-	48,
27	424	280	140	C.	115-08-465-992 48	48

Sequence 21, Appl	Sequence 12, Appl	Sequence 4, Appl :	3	Sequence 4, Appl 1		Sequence 17, App.	a.	Sequence 2, Appl:	Sequence 4. Applia	Sequence 4, Appl	Sequence 129, App	Sequence 2, Appl	Sequence 52, App.		Sequence 57, App.	Sequence 4, Apr 1	Sequence 4. Arrel
US-08-828-683A-21	TIS OR 828 FRIA.12	ng ∩8 219 237B 4	US-08-477-347-12	US-08-476-862-3	115-08-468-5600-4	US:08:232:087A 10	US 08 804 166 2	US 08 910 991 2	US . 08 - 804 - 166 - 4	US-08-910-991-4	US:08 706 945D 129	US-08-050: 319B-2	115 OB OGO 319B-57	US-08-465-982 2	US 08 465 982-57	US-08-050:319B-4	115-08-465-982-4
197 4	154 4	153 2	153 4	153 4	153 4	154 2	256 4	256 4	307 4	307 4	139 4	167 1	167 1	167 2	167 2	124 1	124 2
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ALIGNMENTS

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APPLICANT: Bendele, Alison M.
APPLICANT: Sennello, Regina M.
APPLICANT: Edwards, Carl K.
TITLE OF INVERTION: COMBINATION THERARY USING A THE BINGING TITLE OF INVERTION: PROTEIN FOR TREATING THE-MEDIATED DISPAGES
                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DAFA.
FILING DATE: 08-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 08-DEC-1997
CLASSIFICATION:
PRIOR APPLICATION NUMBER: US 60/032,587
FILING DATE: 65-DEC-1976
PRIOR APPLICATION NUMBER: US 60/032,587
PRIOR APPLICATION NUMBER: US 60/036,355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE. 23-DAN-1997
PRIOR APPLICATION DATA:
APPLICATION HUMBER. IIS 60/010 117
FILING DATE
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BER: A-430D
                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-FGS/MS-FOS
                                                                                                                                                                                                                                              1840 DeHavilland Drive
                       // Sequence 2, Application US/09326394
// Patent No. 6306820
// GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 09-JUL-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Zindrick, Thomas K. REGISTRATION NUMBER: 32,1
                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       161 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             , MOLECULE TYPE: protein US-09-326-394-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE, 07 FEB --
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
                                                                                                                                                                                                                               ADDRESSEE: Amgen Inc
                                                                                                                                                                                    NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                         STREET: 1840 DOLLEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
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                                                                                                                                                                                                                                                                                                           COUNTRY:
US-09-326-394-2
                                          Patent No.
GENERAL IN
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161 KONTVOTCHAGFFIRENECVSCSNCKKSLECTKLCLPQIEN 201

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Patent No. 6015938
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                 Matches 161,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: 11 MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
ANTORNEY/AGENT INFORMATION
NAME: Winter, Robert B.
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: FIRE COMPUTER: FIRE
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APPLICANT: Lacey, David L.
APPLICANT: Calzone, Frank J.
APPLICANT: Chang, Ming-Shi
TITLE OF INTERMICE. CSTEOPROTEGERIH
NUMBER OF SEQUENCES: 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible OPERATING SYSTEM. PC-U-S/MS-D-S SOFTWARE: PatentIn Pelease #1 0, Version #1.30 CURRENT APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
                                                                               101
   121 KANTVOTCHASFFLRENEOVSCSNOKKSLECTKLOLPQIEN 161
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CITY: 1
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TYPE: amino acid
STRANDEDNESS: single
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                                                                               SUSKERREMEDVEISSETVERDTVEGERKNEYRHYWSENLFOCFNOSICLNGTVHLSCOE 160
                                                                                                                                                                                                                                  DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 100
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1840 Dehavilland Drive
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100.0%, Fred. No. 2.7e-76;
ative 0, Mismatches 0;
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Pred. No. 1.6e-76;
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                                                                                                                                                                                                                                                                                                               Matches 161,
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PRIOR APPLICATION NUMBER:
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APPLICANT: Lacey, David L.
APPLICANT: Calzone, Frank J.
APPLICANT: Chang, Ming-Shi
                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SCOTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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                                                                             161
                                                                                                                  121 KONTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
                                                                                                                                                    101 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 160
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                                                                                                                                                                                                                                                                                                                              Local Similarity
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TOPOLOGY: li
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                                                                             KONTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 201
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; Sequence 46, Application US/08795447A
; Patent No. 6284728

; Patent No.

GENERAL

INFORMATION:

APPLICANT: Boyle, William J.
APPLICANT: Lacey, David L.
APPLICANT: Calzone, Frank J.
APPLICANT: Chang, Ming-Shi
TITLE OF INVENTION: Osteopro

Osteoprotegerin

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 SCSYCPPEMGQVEISSCTVDPDTVCSCPYNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
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APPLICANT: Lacey, David L.
APPLICANT: Calzone, Brank J.
AFPLICANT: Chang, Ming-Shi
TITLE OF INVENTION: OSTEOPROTECEPIN
NUMBER OF SEQUENCES: 53
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COMPUTER: IRM PC compatible
OPERATING SYSTEM: PC-DGS/MS-DGS
                                                                                                                                                                                                  COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                      E: Amgen Inc.
One Amgen Center Drive
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Patent No. 6284740
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                                                                                                                                                                                                                                                                                                                                                              NAME: Winter, Robert B. REFERENCE/DOCKET NUMHER A INFORMATION FOR SEQ ID NO: 46:
                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION.
                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 280 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 161; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                          SPOUPNCE CHARACTERISTICS.
NUMBER OF SEQUENCES: 53
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MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS: single
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                   CORRESPONDENCE APPRESS:
                                                                               Thousand Oaks
                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 514
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                                                                                                  California
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                                      ADDRESSEE:
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                                                                                                                   COUNTRY:
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101 SCSKCRKEMSQVEISSCTVDPPTVC3CPKNQYRHYWSENLFQCFNCSLCINGIVHES '08 160
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                                                                                                                                                                                                                                                                                                                                      0, Indels 0; Gaps
                                                                                                                                                                                                                                                                                            100.0%; Score 941; DB 4; Length 240; 100 0%; Pred. No. 2.7e-76; tive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 KONTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          161 KONTVCTCHAGFFLPFNFCVSCSNCKKSLECTKLCLPQ1EN 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Parentin Pelease #1 0, Version #1.30 CUBRENT APPLICATION NATA: APPLICATION NUMBER: US/08/795,4468
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APPLICANT: Lecey, David L.
APPLICANT: Calzone, Frank J.
APPLICANT: Chang, Ming-Shi
TITLE OF INVENTION: OSTROPPOTECHPIN
NUMBER OF SEQUENCES: 53
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APPLICATION NUMBER: 08/577,788
                      APPLICATION NUMBER: 08/577,788
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Floppy disk
                                       FILING DATE: ATTORNEY/AGENT INFORMATION:
                                                                              NAME: Winter Robert B.
REFERENCE/CE/DOCKET UNMBER:
INFORMATION FOR SEQ ID NO: 4
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                            280 amino acids
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                                                                                                                                                                                                  single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
PRIOP APPLICATION DATA-
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OPERATING SYSTEM:
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US-08-795-446B-46
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APPLICANT: Lacey, David
APPLICANT: Calzone, Frank
APPLICANT: Calzone, Frank
APPLICANT: Chang, Ming-Shi
TITLE OF INVENTION: Osteoprotegerin
FILE REFERENCE: A-378CIP
CUBRENT APPLICATION NUMBER: US/08/706,945D
CUBRENT FILING DATE: 1996-09-03
PRIOR FILING DATE: 1995-12-22
PRIOR FILING DATE: 1995-12-22
PRIORE: SEO ID NOS: 145
COSTMANDE: DESCRIPTION NUMBER: OBSENCE OF SEO DATE: 1995-12-22
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                                                                                                                   GENERAL INFORMATION:
APPLICANT: Campbell, Robert K.
APPLICANT: Cameson, Bradford A.
APPLICANT: Chappel, Scott C.
TITLE OF INVENTION: HYPRID PROTEINS
NUMBER OF SEQUENCES. 22
CORRESPONDENCE ADDRESS:
ADDRESSIE: HPOWDY AND NEIMAPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-804-166-8
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Patent No. 6369007
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ORGANISM: Homo sapiens
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                                    STREET:
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51; Conservative
                                    Washington
D.C.
                                                                              419 Seventh Street N.W., Ste. 300
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 280;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Sequence 8, Application US/08910991; Patent No. 6194177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (202) 737-352
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 336 amino acid
                  SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/910,991 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Campbell, Robert K.
APPLICANT: Jameson, Bradford A.
APPLICANT: Chappel, Scott C.
TITLE OF INVENTION: HYBRID PROTEINS
NUMBER OF SEQUENCES: 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
ZIF: 22207
COMPUTER READABLE FORM.
                                                                                                                                                                           COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MCLECULE TYPE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        143 KONTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 KONTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
                                                                                                                                                                                                                                                         STREET: 419 Sever
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                y Match 100.0%; Score 941; DB 4; Length 336;
Local Similarity 100.0%; Pred. No. 3.2e-76;
hes 161; Conservative 0; Mismatches 0; Indels
CLASSIFICATION: 530
                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                   MEDIUM TYPE:
                                                                                                                                                                                               COUNTRY: U
                                                                                                                                                                                                                                           STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              83
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Browdy, Roger L.
REGISTRATION NUMBER: 25,618
REFERENCE/DOCKET NUMBER: CAMPBELL=2A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/011,93 FILING DATE: 20 February 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                            ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/804, 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SCSKCRKEMGOVEISSCTVDRDTVCGCRKNOYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           amino acid
                                                                                                                                                                                                                                           D.C.
                                                                                                                                                                                                                                                                                     419 Seventh Street N.W., Ste. 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             336 amino acids
                                                                                                                                                                                                                      USA
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(202) 737-3528
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                                                                                                                                                                                                                                                                                                            BROWDY AND NEIMARK
                                                                                                                                               Floppy disk
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Gaps

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        83 SCSKCRKFMGQVFISSCTVDRPTVGGCPKNQYPHYWSENI,PQCFNGSLCLNGTVHLSCQE 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 DSV/PQGKYIHPQNNSI/CTK/HKGTYLYNDGPGPGQDTDGPE/ESGSFTASENHLPH(L 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23 DSVCPQGPYIHPQNNSICCTFCHKGTPLYNDCPGPGQDTDCPPGESGSFTASENHLRHCL 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                      100 0%; Score 941; DB 4; Length 336; 100 0%; Pred No. 3.2e-76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: M.Feldmann, P.W. Gray,
APPLICANT: M.J.C. Turner, F.M. Brennan
1717LS OF INVENTION: Modified human TNFalpha (Tumor
TITLE OF INVENTION: Necrosis Partor alpha) Receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Release #1.0, version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/050,319B
FILING DATE: 10-May-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100 0%; Pred no.
                                                                                                                                                                                             CAMPBELL-2B
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REFERENCE/DOCKET NIMBER: 5150-0030
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COMPUTER: IRM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US 08-050-3198-25; Sequence 25, Application US/080503198; Patent No. 5633145
                    APPLICATION NUMBER: 08/804,166
FILING DATE: 20 February 1997
PRIOR APPLICATION DATA:
APPLICATION DATA: 6/011,936
FILING DATE: 20 February 1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                NAME: YUN, Allen C
REGISTRATION NUMBER: 37,971
                                                                                                                                                                                           REPERENCE/POCKET NUMBER: CAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
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INFORMATION FOR SEQ 1D NO: 25:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (415) 617-8999
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                                                                                                                                                                                                                                        (202) 628-5197
                                                                                                                                                                                                                                                        TELEFAX (202) 737 3528
INFORMATION FOR SEQ ID NO: 8:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    635 Bryant Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                            LENGTH: 336 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 161; Conservative
                                                                                                                                                                                                                                                                                                     SEQUENCE CHAPACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: protein
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               California
                                                                                                                                                                                                                                                                                                                                                amino acid
                                                                                                                                                                                                                                                                                                                                                                         linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                             US 08 910-991-8
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TITLE OF INVENTION: MOLECULES INFLUENCING THE SHEDDING OF TITLE OF INVENTION: THE THE FREEPENS, PHEIR PREFARATION AND THELLE UNDER OF SEQUENCES: 42
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                      41 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDGPGPGQDTDCRECESGSFTASENHIRBGL 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03 (3.15)
                                                                                                                                                    0; Indels 0; Gaps
                                                                                                                                                                                           1 BSVCPQGKYIHPQNNSICCTKCHKGTYLYNPCPGFGGTTD**PEGESGSFTASENHLRH** + 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 941; DB 1; Longth 455; Similarity 100.0%; Pred. No. 4.38.76; 1. Conservative 6; Mismatches 6; Indels 6
                                                                                                              100.0%; Score 941; DB 1; Length 455; 100.0%; Pred. No. 4.3e-76;
                                                                                                                                                                                                                                                                                                                                                      121 KONTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
                                                                                                                                                                                                                                                                                                                                                                        161 KQNTVCTCHAGFFLRENECVSCSNCKSLECTKLCLPQIEN 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1 0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              E: BROWDY AND NEIMARK
419 Seventh Street, N.W., Suite 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/321,668
FILING DATE: 12-OCT-1994
CLASSIFICATION: 435
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: IL 107268
FILING DATE: 12-OCT-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             // Sequence 2, Application US/08321668
// Patent No. 5665859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: WALLACH, David
APPLICANT: BAPEBUSCH, Cord
APPLICANT: VARFOLOMED', BUGGNG
APPLICANT: BATKIN, Michael
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25,618
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INFOPMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  455 amino acids
455 amino acids
                                                                                                                                                      Matches 161; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: BROWDY, ROGER L. REGISTRATION NUMBER: 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               202-737-3528
                TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
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MEDIUM TYPE: Floppy
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MOLECULE TYPE
US-08-050-3198-25
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US-08-321-668-2
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US-08-837-941-2
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US-08-837-941-2
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Patent No. 5766917
GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 161; Conservative
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APPLICANT: BRAKERUSCH, Cold
APPLICANT: BRAKERUSCH, Cold
APPLICANT: VARFOLOMERV, Eugene
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APPLICANT: VARFOLOMERV, Eugene
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APPLICANT: VARFOLOMERV, THE INTERVIEW THE SHABING OF
TITLE OF INVENTION. THE THE RETERTORS, THEIS PREPARATION AND THEIR USE
TOURSES OF DEQUENCES: 42
CORRESPONDENCE ACCESS
ADDRESSEE: BROWDY AND MEIMARK
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PAPELICATION NUMBER US 58/
EPILING DATE: 12 OCT-1994
APPLICATION NUMBER IL 10-7
APPLICATION NUMBER IL 10-7
FILING DATE: 12-OCT-1993
ATTORNET/AGENT INFORMATION
MAME: BECAUT: F-3-2-1
REGISTRATION NUMBER: 55-61
REGISTRATION NUMBER: 55-61
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COMPUTER READABLE FORM:
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TELEFORMMUNICATION INFORMATION.
TELEPHONE: 100-628-5197
TELEFHAX: 202-737-3528
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COMPUTED: IBM PC compatible
OPERATING SYSIEM: EC-LOS/MS-105
SOFTWARE: ParentIn Release #1.0, Version #1
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                                                                                                                                                                                                                                    Matches 161;
                                                                                                                                                                                                                                                       Best Local Similarity
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                                                                                                                                                                                                                                                                       Query Match
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TELEX: 248633
INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE.
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PPIOR APPLICATION NUMBER: US 07/625668
PILING DATE: 13.DEC-1990
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy
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APPLICANT: ENGELMANN, HARTMI
APPLICANT: BRAKEBUSCH, CORD
APFLICANT. ADERKA, DAN
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LENGTH: 455 amino acid
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/126,016
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161 KONTVOTCHAGFFLRENECVSCSNCKKSLECTKLCLFQIEN 201
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CITY: Washington
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                                                                                                                                                                                                                                                                                                                                                                            TYPE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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TELEPAX, 202-737 3528
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                                                                                            SOSKOFKEMSQVEISSOTVOPDTVOOCPROQVFHYWSENLFQCFHOSLOLXGTVHLSOGE 1.0
                                     KONTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIEN 161
                                                                        SCSECENEMOQUEISSCTUCEDTUCGCRENQVEHYMSENLFQCFRCSLCLNGTVHLSCCE 160
                                                                                                                                                      DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 100
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                                                                                                                                                                                                                                                                                                                                                                                           455 amino acids
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NOPHAR, YARON
KEMPER, OLIVER
ENGELMANN, HARTMUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          419 Seventh Street, N.W., Suite 300
                                                                                                                                                                                                                                  Conservative
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                                                                                                                                                                                                                                                   100.0%; Score 941; DB 2; Length 455; 100.0%; Pred. No. 4.3e 76;
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CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101 SCSKOPKFRAGOVEISSOTUDPPTVOGOPKNOVBENLFQCFNCSLCLNSTVHLSCQE 160
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Fatent No. 6153402
GENERAL INFORMATION:
APPLICANT: Yu, Guo-Liang
APPLICANT: Ni, Jian
APPLICANT: Dixit, Vishua
APPLICANT: Centz, Reiner L.
APPLICANT: Dillon, Patrick J.
TITLE OF INVENTION: Death Domain Containing Receptors
                                                                                                  APPLICANT: M Feldmann, P.W. Gray,
APPLICANT: M J C Turner, F M Brennan
TITLE OF INVENTION: Modified human TNFalpha (Tumor
TITLE OF INVENTION: Necrosis Factor alpha) Receptor
NUMBER OF SEQUENCES: 57
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 KONTVOTOMAGPFLPENECVSCSNOKKSLECTKLCLPQIEN 161
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                                                                                                                                                                                                                                                                                                                                                                                                                                                Patentin Release #1.0, version #1.25
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Rest Local Similarity 100 0%; Pred No. 4.39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Pobbins, Roberta L.
REGISTRATION NUMBER: 33.208
REPERENCE/DOCKET NUMBER: 5150-0030
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/465,982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/050,319
                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPFPATING SYSTEM: PC-DOS/MS-DOS
                                     Sequence 25, Application US/08465982 Patent No. 5863786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (415) 327-3231
INFORMATION FOR SEQ ID NO. 25.
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (415) 617-8999
                                                                                                                                                                                                                                     E: Reed & Robbins
635 Bryant Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 10-May-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 455 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM: MEDIUM TYPE: Floppy of
                                                                                                                                                                                                                                                                           CITY: Palo Alto
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
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                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                        USA
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                        US 08 465-982-25
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RESULT 14
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61 SCSKCPKEMGOVBISSCTVORDTVCGGPKNGVRHVMARNIFGGFNGSLATMATVHLGGGE 120
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ADDRESSEE: Sterne, Kessler, Goldstein & Fox, P.L.L.C.
STREET: 1100 New York Ave., NW, Suite 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 KONTVCTCHAGFFLPENECVSCSNCFFSLECTFFICLPQIEN 161
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                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1,0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 1488.0310003/EKS/KRM
                                                                                                                                                                                                                                                                                                                                                                                            UMBER: No. 6153402 Yet Assigned 06-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Search completed: January 6, 2003, 04:00:13
Job time : 27 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 17-OCT-1996
PPIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/010
                                                                                                                                                                                                                                                                                              APPLICATION NUMBER - US/08/815,469
                                                                                                                                                                                              COMPUTER. IBM PC comparible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36,688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS: not relevant
TOPOLOGY: not relevant
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 12-MAR-1996 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                         Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             455 amino acids
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                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                   FILING DATE: HEREWITH CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Steffe, Eric K. REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 06-FEB-1
PRIOR APPLICATION DATA:
APPLICATION NUMBER: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: protein
                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                              Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acid
STRANDEDNESS: no
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                                                                                                COUNTRY: USA
ZIP: 20005-3934
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Genfore version 5 1 3
Copyright (c) 1993 - 2003 Compugen Ltd.
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protein search, using sw model OM protein

January 6, 2003, 03:57:55 ; Search time 13 Seconds Run on:

(without alignments)
234.707 Million cell updates/sec

US-09-882-735-2 941 Title: Perfect score:

CSNCKKSLECTKLCLPQIEN 161 1 DSVCPQGKYIHP@NNSICGT. Sequence:

BLOSUM62 Scoring table:

117078 segs, 18951520 residues Gapop 10 0 , Gapext 0 5 Sparchod

117078 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Published_Applications_AA:* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		عن				
Result		Ouery				
Ŝ	Score	Match	Match Length	DB	ID	Description
	941	100.0	161	σ	11S-n9-898-234-4	Sequence 4. Appli
C4	941	100.0	161	6	US-09-899-429A-4	4
~	941	100.0	161	σ	US-09-792-356-4	
₹	941	100.0	161	10	US-09-899-422-4	. 4
5	941	100.0	161	10	US-09-907-263-2	
÷	941	100.0	162	σ	US-09-899-429A-6	
7	941	100.0	162	10	US-09-798-789-9	Sequence 9, Appli
œ	941	100 0	162	ĵŪ	US-09-798-789-22	
6	941	100.0	172	6	US - 09 899 - 429A - 20	
10	941	100.0	173	σ	US-09-899-429A-16	
1.1	941	100.0	183	σ.	US-09-899-429A-10	10,
12	941	100.0	190	6	US-09-899-429A-18	18,
13	941	100 0	200	c	TIS-09-429A-12	12,
14	941	100 0	201	σ	US-00-809-4208-14	14,
1.5	941	100.0	211	6	US-09-899-429A-8	8
16	941	100.0	213	6	US-10-125-062-1	٦,
1.7	941	100.0	336	10	US-09-756-186-8	8
18	941	100.0	171	σ	TIS 09-898-234-12	
1.9	941	100.0	371	6	US-09-792-356-12	12.

Sequence 12, Appl. Sequence 2, Appl. Sequence 17, Appl.	को वर्षे	2	Sequence 2, Appli Sequence 17, Appl		Sequence %, Appin Sequence 3, Appin	-		Sequence 2, Appli		Sequence 5, Apply	-	e.	Sequence 21, Appl	Sequence 22, Arph	ر : ۱	Sequence 6, Appli	Sequence 19, Appl	Sequence 21, Appl
10 US-09-899-422-12 9 US-09-898-234-17 9 US-09-898-234-17	9 US-09-756-854-5 9 US-09-899-429A-2	9 US 09 899 429A 27 9 US-10-041-574-5	9 US-09-792-356-17	10 05 09 826 212-3	10 US-09-331-966-5 10 US 09 027 287-3	- 09-874-	10 HC 09 840 707A-16	10 US-09-272-R3RE-3 10 US-09-899 422-2	10 UC:09:899:422 17	10 US-09-935-727-5	12 110 105 842 3		10 US:09 798 789-21	9 US-09-899-429A-22	10 US 09 798 789 20	10 US 09:756 186-6	10 US-09-798-789-19	9 US-10-112-793-21
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100.0	100.0	100.0	100.0	100.0	100.0	100.0	C C	100.0	100.0	100.0	100 c	100.0	99.1	6.86	98.6	98.6	98.5	6.76
941 941 941	941	941 941	941	94.	941	941	4.5	941	941	941	941	941	933	931	928	928	927	921
220	23	25 26	27	6.0	31	32	(M) (3.4 5.5	36	37	38	39	40	41	4.2	43	44	4.5

ALIGNMENTS

SPECEAL INCLEMENT. Rudolph
APPLICANT: Himmler, Adolph
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: The
TITLE OF INVENTION: Them
TITLE OF INVENTION: Them
FILE REFERENCE: 98,385-1
CURRENT AFFLICATION HIMBER: 04/525,998
PRIOR PELICATION NUMBER: 04/525,998
PRIOR PELING DATE: 2000-03-15
PRIOR PELING DATE: 1995-02-01
PRIOR PELING DATE: 1995-02-01
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR APPLICATION NUMBER: 07/921,750
PRIOR PELING DATE: 1992-01-02
PRIOR PELING DATE: 1992-01-02
PRIOR PELING DATE: 1992-01-02
PRIOR PELING DATE: 1992-01-02
PRIOR PELING DATE: 1990-04-20 sdey to 100.0%; Score 941; DB 9; Length 161; 160.0%; Pred. No. 2.8e 61; 0; Indels 0, Mismatches // Sequence 4, Application US/09898234
// Patent No. US20020155112A1
// GENEPAL INFORMATION: PatentIn Ver. 2.0 Matches 161; Conservative ORGANISM: Homo sapiens Query Match Best Local Similarity LENGTH: 161 US-09-898-234-4 US-09-898-234-4 SOFTWARE: F SEQ ID NO 4 TYPE: PRT

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Sequence 4, Application US/09792356
FUB-1:Cation No. US28020183485A1
GENERAL INFORMATION.
APPLICANT: Hauptmann, Rudolph
APPLICANT: Haunter-Fogy, Ingrid
APPLICANT: Stratowa, Christian
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PRIOR PRILIVATION UNMEER: 05/23

PRIOR APPLICATION UNMEER: 05/477,639

PRIOR APPLICATION UNMEER: 05/477,639

PRIOR FILING DATE: 1955-06-07

PRIOR FILING DATE: 1955-02-01

PRIOR APPLICATION NUMBER: 08/153,287

PRIOR APPLICATION NUMBER: 08/153,287

PRIOR FILING DATE: 1993-11-17

PRIOR FILING DATE: 1993-11-17

PRIOR FILING DATE: 1992-01-02

PRIOR FILING DATE: 1992-01-02

PRIOR FILING DATE: 1992-01-02

PRIOR FILING DATE: 1990-04-20

NUMBER OF SEQ ID NOS: 97
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Best Local
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CURRENT APPLICATION NUMBER: US/09/792,356
CURRENT FILLYS DATE. 2001-08-17
PRIOR APPLICATION NUMBER. 08/477,639
                                                                                  APPLICANT: Stratowa, Christian TITLE OF INVENTION: TNP Receptors, TNP Binding Proteins and DNAs Coding for TITLE OF INVENTION. Them FILE REFERENCE: 98,385-G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION. THE Receptors, THE Binding Proteins and DNAs Coding for FILE OF INVENTION. Them
FILE REFERENCE: 98-385-J
CURFERM APRILATION HIMSEF. 18/53/893,419A
CURRENT FILING DATE: 2001-07-03
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LLI KUMTVOTORAGEFLEENEOVSOSMOKKSLEOTKLOLPQIEN 161
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 SCSKCRKEMSQVEISSCTVDRDTVCSCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SCSMORREMOQVETSSOTVERETVOOGERNQYRHYWSENLFQCENCSLCLNGTVHLSCQE 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   h 100.0%; Score 941; DB 9; Similarity 100.0%; Pred No. 2 8e-61; Conservative 0, Mismatches 0;
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Maurer-Fogy, Ingrid
Stratowa, Christian
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1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQUTDCRECESGSFTASENHLRHCL 60

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                                                                                                                                                 US-09-899-422-4
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                                                                                                                                                                                                                                            ; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
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FRIOR FILING DATE 1995-02-01
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR FILING DATE 1993-11-17
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR FILING DATE 1992-01-02
PRIOR FILING DATE 1992-01-02
PRIOR APPLICATION NUMBER: 07/511,430
PRIOR FILING DATE: 1990-04-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 4
                                                    Matches 161; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 161,
                                                                                               Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/899,422
CURRENT FILING DATE: 2001-08-21
PRIOR APPLICATION NUMBER: 09/525,998
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                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 87
                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 07/511,430 PRIOR FILING DATE: 1990-04-20
                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: 07/821,750 FRIOR FILING DATE: 1992-01-02
                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 08/153,287 PRIOR FILING DATE: 1993-11-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR FILING DATE: 2000-03-15
PRIOR APPLICATION NUMBER: 08/383,676
PRIOR FILING DATE: 1995-02-01
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APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Hauptmann, Rudolph
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILE REFERENCE: 98,385-H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: THE Receptors, THE Binding Proteins and DNAs Coding for TITLE OF INVENTION: Them
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT ORGANISM: Homo sapiens
                                                                                                                                                                   ORGANISM: Homo sapiens
                                                                                                                                                                                            TYPE. PRT
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                                                                           Local Similarity
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1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
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Maurer-Fogy, Ingrid
Stratowa, Christian
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                                                                      100.0%; Score 941, DB 10;
100.0%; Pred. No. 2.8e-61;
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                                               Mismatches
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                                                                                          Length 161,
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121 KONTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIFN 161
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                     61 SCSKORKEMGOVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                     PROTEIN FOR TREATING TNF-MEDIATED DISEASES
                                                                                                                                                                                                                                                                                                                                       APPLICANT: Bendele, Alison M.
Senallo, Regina M.
Rdwardlo, TITLE OF INVENTION: COMPINATION THEPAPY USING A TWF PINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 941; DB 10; Length 161; 100 n%; Pred No 2 Re-61; tive 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                          121 KONTVOTCHAGFFLPENEGVSOSNOKKSLEGTKLOLPQIEN 141
                                                                                                                                  121 KONTVCTCHAGFFLPENECVSCSNCKKSLECTKLCLPQIEN 161
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APPLICATION NUMBER: US/09/907,263
FILING DATE: 17-011-2001
CLASSIFICATION: «Inknown»
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US 09/326,394
FILING DATE: 199-06-04
PAPLICATION NUMBER: US 60/036,355
FILING DATE: 23-JAN-1997
APPLICATION NUMBER: US 60/039,315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILLING DATE: 07-FEB-1997
APPLICATION NUMBER- US 60/052,023
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NIMBER: A-430D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Amgen Inc.
STREET: 1840 DeHavilland Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Zindrick, Thomas K. REGISTRATION NUMBER 32,1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 09-JUL-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Floppy disk
                                                                                                                                                                                                                                                US-09 907-263-2
; Sequence 2, Application US/09907263
; Patent No. US20020119924A1
; GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Thousand Oaks
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 91320-1789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: US
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Best Local Similarity
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APPLICANT: Himmler, Adolph
APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Stratuowa, Christian
TITLE OF INVENTION. The Receptors, THF Pinding Proteins and 1812s Coding 10g ITLE OF INVENTION.
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TITLE OF INVENTION: DESIGN AND DISCOVERY OF PROTEIN RASED THE ALPHA
TITLE OF INVENTION: VARIANTS FOR THE TREATMENT OF THE ALPHA FELATED
TITLE OF INVENTION: DISCREBES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: Description of Artificial Sequence: recombinant OTHER INFORMATION: TNF-RP sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 941; DB 9; Length 162; 100.0%; Pred, No. 2.8e-61;
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                                                                                                                                                                                                                                                                                                   TILLE REFERENCE: 96-385-J
CURRENT APPLICATION NUMBER: US/09/899,429A
CURRENT FILING DATE: 2001-07-03
PRIOR PELICATION NUMBER: 09/792,356
PRIOR FILING DATE: 2000-02.23
PRIOR APPLICATION NUMBER: 08/477,639
PRIOR APPLICATION NUMBER: 08/477,639
PRIOR PILING DATE: 1955-06-03
PRIOR PELING DATE: 1955-06-03
PRIOR PELING DATE: 1995-01-17
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR FILING DATE: 1993-11-17
PRIOR FILING DATE: 1993-11-17
PRIOR FILING DATE: 1993-00-02
PRIOR FILING DATE: 1993-01-02
PRIOR FILING DATE: 1993-01-02
PRIOR FILING DATE: 1990-04-20
NUMBER OF SEQ ID NOS: 97
SOFTWARE: PATENTIN UVET: 2.0
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CURRENT APPLICATION NUMBER: US/09/798,789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER 18 66/186,427 PRIOR PLING DATE: 2000 03.02 NUMBER OF 18 FLING DATE: 2000 03.03
                                                Sequence 6, Application US/n9899429A Patent No. US20020169118A1 GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
                                                                                                                                           APPLICANT: Hauptmann, Rudolph
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APPLICANT: Filikov, Anton
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RESULT 6
US-09-899-429A-6
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GENERAL INFORMATION:

APPLICANT: Hauptmann, Rudolph
                                               Sequence 20, Application US/09899429A Patent No. US20020169118A1
                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Legal :
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Patent No. US/2002009780A1
GENERAL INFORMATION:
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/798,789
CURPENT FILTNS CATE 2001-03-02
PRICE APPLICATION NUMBER: US 60/186,427
PRICE FILING CATE: 2000-03-02
NUMBER OF SEQ ID NOS: 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Dabiyat, Bassil
APPLICANT: Filikov, Anton
TITLE OF INVENTION. DESIGN AND DISCOVERY OF PROTEIN BASED TNF-ALPHA
TITLE OF INVENTION: VARIANTS FOR THE TREATMENT OF TNF-ALPHA RELATED
TITLE OF INVENTION: DISORDERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 161;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
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                                                                                                                                                                                                                   TEL ECHTYCTCHYSEEDERIECASCENCHESTECIETOTEGIEN 181
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                                                                                                                                                                                                                                                                                                    61 SCSECREMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Legal Similarity
                                                                                                                                                                                                                                                                                                                                             A DISYCHPAGKY LHPANNSTOCTKOHKOTYLYNFOPGROODDTDCKECESGSPTASENHLRHCL 61
                                                                                                                                                                                                                                                                                                                                                                   1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
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                                                                                                                                                                              KONTYCTCHAGEFLEENECVSCENCKKSLECTKLCLPQIEN 162
                                                                                                                                                                                                                                                               SOSKOPKEMGOVETSSOTVDPDTVOGGPKNOVRHYWSENLFQGFNGSLGLNGTVHLSGQE
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Fred. No. 2.8e-61;
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Pred. No. 2.8e 61;
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RESULT 10
US-09-899-429A-16
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PRIOR FILING DATE: 2000-02-23
PRIOR APPLICATION NUMBER: 08/477,639
PRIOR RILING DATE: 1955-06-07
PRIOR APPLICATION NUMBER: 08/383,676
PRIOR FILING DATE: 1995-02-01
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR PILING DATE: 1993-11-17
PRIOR FILING DATE: 1993-11-17
                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
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PRIOR FILING DATE: 1995-02-01
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR FILING DATE: 1993-11-17
PRIOR APPLICATION NUMBER: 07/821,750
                                                                                                                                                                                                                                                           TITLE OF INVENTION: TNF Receptors, TNF Binding Proteins and DNAs Coding for TITLE OF INVENTION: Them
FILE REFERENCE: 98-385-J
                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/899,429A CURRENT FILING DATE: 2001-07-03
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                                                                                                                                                                                      PRIOR APPLICATION NUMBER: 09/791,356
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Maurer-Fogy, Ingrid
Stratowa, Christian
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Stratowa, Christian
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FRIOR FILING DATE: 1992-01-02 PRIOR APPLICATION NUMBER: 07/511,430

FILING DATE: 1990-04-20

APPLICATION NUMBER: 07/821,750

PRIOR

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APPLICANT: Humler, Adolph
APPLICANT: Humler, Adolph
APPLICANT: Mauree-Fogy, Ingrid
APPLICANT: Mauree-Fogy, Ingrid
APPLICANT: Mauree-Fogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: The Receptors, TNF Binding Proteins and DNAs Coding for
TITLE OF INVENTION: Them
FILE REFERENCE: 98.182.
FILE REFERENCE: 98.182.
FURRENT APPLICATION NUMBER: US/09/899,429A
CURRENT APPLICATION NUMBER: 09/792,346
PRIOR FILING DATE: 2000-02-9
PRIOR FILING DATE: 1995.06-07
PRIOR FILING DATE: 1995.06-07
PRIOR FILING DATE: 1993.11-17
PRIOR FILING DATE: 1999.10-17
PRIOR FILING DATE: 1999.10-17
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                                                                                                                                                                                                                                                                                                                                                                           0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                           1 BSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Description of Artificial Sequence: recombinant OTHER INFORMATION: TNF-BP sequence
                                                                                                                                                                                              OTHER INFORMATION: Description of Artificial Sequence: recombinant OTHER INFORMATION: TNF-BP sequence
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                                                                                                                                                                                                                                                                                                          Ouery Match 100.0%; Score 941; DB 9; Length 173; Best Local Similarity 100.0%; Pred. No. 3e-61; Matches 161; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 KONTVOTOHAGPFLPENEOVSCSNOKKSLEGTKLOLPOJEN 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 10, Application US/09899429A Patent No. US20020169118A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Artificial Sequence
                                                                                                                                      ORGANISM: Artificial Sequence
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APPLICANT: Hauptmann, Rudolph
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SOFTWARE: Patentin Ver. 2.0
                             SOFTWARE: Patentin Ver. 2.0
NUMBER OF SEG ID NOS. 97
                                                                                                                                                                                                                                     ; ОТИЕК ІМЕСКЫ
US 09-899 429A-16
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                             SEQ ID NO 16
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                                                                                                              TYPE: PRT
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                                                                                                                                                                      FEATURE:
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APPLICANT: Himmler, Adolph
APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: The Receptors, TNF Binding Proteins and DNAs Coding for
FILE REFERENCE: 98-385-J
61 SCSKCFKEMIGQVELSSCTVDPPCTVPGCFKMQYEHYWDENLEDCFNCSLCLNGTVHLSTQF 120
                         73 SCSKCPYEMGQVEISSCTVPPPTVGOPPWQYBHYWSENLEGGFNOSLGLMSTVHSS QE 1.9.
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                                                                                                          121 KONTVCTCHAGFFLPENEGVSGSNOWYSLFOTYLCLPQIEN 161
                                                                                                                                 133 FQNTVCTCHAGFFLPENECVSCSNCKKSLECTKLCLPQIEN 173
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PRIOR PAPLICATION NUMBER: 09/792,356
PRIOR PILING DATE: 2001-07-03
PRIOR PILING DATE: 109/792,356
PRIOR FILING DATE: 1955-06-07
PRIOR PILING DATE: 1955-06-07
PRIOR APPLICATION NUMBER: 08/38,676
PRIOR PILING DATE: 1995-02-01
PRIOR PRIOR DATE: 1995-01-07
PRIOR PAPLICATION NUMBER: 08/15,287
PRIOR APPLICATION NUMBER: 08/15,287
PRIOR PILING DATE: 1993-11-17
PRIOR PILING DATE: 1993-11-17
PRIOR FILING DATE: 1992-01-02
PRIOR PILING DATE: 1992-01-02
PRIOR FILING DATE: 1990-04-20
                                                                                                                                                                                                                                                                                                     , Sequence 18, Application US/09899429A ; Patent No. US20020169118A1
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; APPLICANT: Hauptmann, Rudolph
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SOFTWAPE: PatentIn Ver 2 0
                                                                                                                                                                                                                                              RESULT 12
US-09-899-429A-18
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APPLICANT: Hauptmann, Rudolph
APPLICANT: Himmler, Adolph
APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: TWF Receptors, TWF Binding Proteins and DNAs Coding Los 0; Indels 0; Gaps 30 DSVCPQGKYIHPQNNSLCCTECHESTYLYNI-CP-SP-3QCTI-CPE-ES-GSFTASENHARB 1, HT 1 DSVÇPQSKYTHPQNNSTÇTKÇHKGTPVLYNDOPSPSQQTLGFEGSSFTASENHLRHGL 60 100 0%; Score 941; DB 9; Length 190; 100 0%; Pred. No. 3.2e-61; tive 0; Mismatches 0; Indeln 150 KONTVCTCHAGFFLPENECVSCSNCKKSLECTKLCLPQIEN 190 121 KONTVCTCHAGFFLRENECVSCENCK/SLECTKLCLPQIEN 161 ; Sequence 12, Application US/09899429A; Patent No. US20020169118A1; GENERAL INFORMATION: Query Match Best Local Similarity 100 0' Matches 161, Conservative RESULT 13 US-09-899-429A-12 ò ď ò op ò qq

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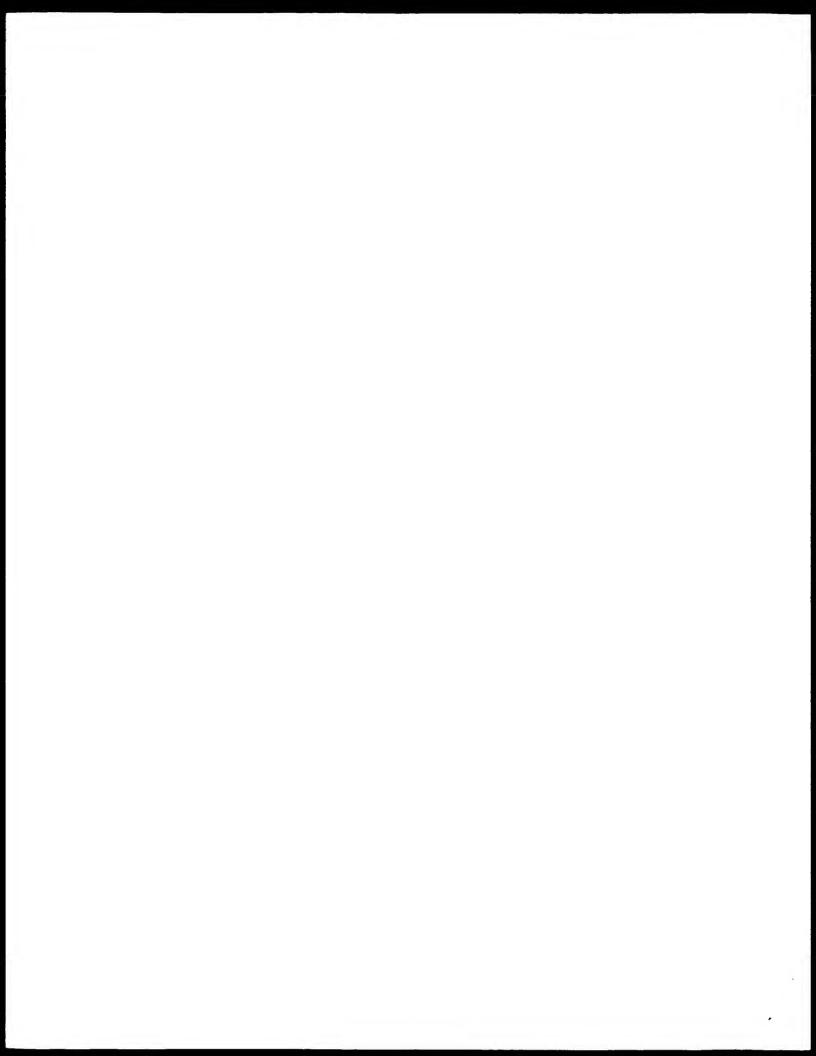
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CORRENT MARLIANTH NIMBER 137 NAME OF THE TWO DATE: 2001 07 03 PRIOR ATTENDATE: 2000 02 23 PRIOR FILING DATE: 2000 02 23 PRIOR FILING DATE: 2000 02 23 PRIOR APPLICATION NUMBER: 05/477,639 PRIOR APPLICATION NUMBER: 06/473,676 PRIOR FILING DATE: 1995 02 01 PRIOR APPLICATION NUMBER: 06/483,676 PRIOR FILING DATE: 1995 02 01 PRIOR APPLICATION NUMBER: 06/483,287 PRIOR FILING DATE: 1995 02 01 PRIOR FILING DATE: 1995 07/921,750 PRIOR FILING DATE: 1990 04-20 PRI
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APPLICANT: Himmler, Adolph
APPLICANT: Mattor: Fogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: THE Receptors, TI
TITLE OF INVENTION: Them
FILE REFERENCE: 98-385-J
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PRIOR PAPELING DATE: 2006-02-23
PRIOR PELING DATE: 2006-02-23
PRIOR APPLICATION NUMBER: 08/477,639
PRIOR APPLICATION NUMBER: 08/477,639
PRIOR FILLING DATE: 1995-02-01
PRIOR FILLING DATE: 1995-02-01
PRIOR PELING DATE: 1995-02-01
PRIOR PELING DATE: 1993-11-17
PRIOR FILLING DATE: 1993-11-17
PRIOR FILLING DATE: 1992-11-02
PRIOR FILLING DATE: 1992-01-02
PRIOR FILLING DATE:
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Patent No. US200201641144:
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SOFTWARE: PatentIn Ver.
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Pred. No. 3.4e-61,
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FRICH AFPLICATION NUMBER: 09/792,356
PRIOR FILING DATE: 2000-02-23
FRIOR AFPLICATION NUMBER: 08/477,639
PRIOR FILING DATE: 1955-06-07
PRIOR FILING DATE: 1955-02-01
PRIOR PAPLICATION NUMBER: 08/153,287
PRIOR FILING DATE: 1995-02-01
PRIOR FILING DATE: 1993-11-17
PRIOR FILING DATE: 1993-11-17
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR APPLICATION NUMBER: 07/511,430
PRIOR FILING DATE: 1990-04-20
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                                                                                                                                                                                                                                         Matches
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                                                                                                                                                                                                                                                                                         Duery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Stratowa, Christian
TITLE OF INVENTION: The Receptors, TNF Binding Proteins and DNAs Coding for
TITLE OF INVENTION: Them
FILE REFERENCE: 98-385-J
COMPETER APPLICATION NUMBER: US/C9/893,429A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Hauptmann, Rudolph
AFELICANT: Himmler, Adolph
APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Stratowa, Christian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CEGARISM. Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
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CEGANISM: Artificial Sequence
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61 SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCENCSLCLNGTVHLSCQE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             161 KONTVOTCHAGFFLRENECVSCSNCKKSLECTKLCLFQIEN 201
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                                                                                                                41 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 100
                                                                                                                                                                                                                                / Match 100.0%; Score 941; DB 9; Local Similarity 100.0%; Pred. No. 3.5e-61; res 161; Conservative 0; Mismatches 0;
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Swarch completed: January 6, 2003, 04:00:32 Job time : 15 Recs



GenCore version 5.1.3 Copyright (c) 1993 - 2003 Compugen Ltd.

protein search, using sw model OM protein

Run on.

January 6, 2003, 03.49.55 , Search time 17 Seconds (without alignments) 910.450 Million cell updates/sec

US-09-882-735-2

PSNCKKSLBCTKLCLPQIBN 141 1 DSVCPQGKYIHPQNNSICCT Perfect score:

Scoring table: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5

283224 Total number of hits satisfying chosen parameters:

283224 segs, 96134422 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Listing first 45 summaries Post-processing: Minimum Match 0% Maximum Match 100%

PIR 73:* Database :

pirl:* pir2.* pir3:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		ð			SUMMARIES	
Result No.	Score	Query Match	Length	ПВ	Q I	Description
-	941	100.0	455	-	GOHUT1	tumor negrosis fac
2	716.5	76.1	461	2	JC4302	ω
~	680	72.3	454	П	GQMST1	tumor necrosis fac
4	699	71.1	461	7	GQRTT1	tumor necrosis fac
ĵ.	187.5	19.9	435	7	I54182	tumor necrosis fac
9	182.5	19.4	427	7	GOHUN	nerve growth facto
7	181	19.2	474	7	B38634	tumor necrosis fac
Œ	179.5	19.1	326	-	GOVZML	T2 protein - myxom
6	178	18.9	325	C4	843692	
10	176.5	18.8	425	~	A26431	r,h
11	176	18.7	459	C1	I48854	
15	167.5	17.8	305	C 4	A46476	R cell associated
:	166.5	17.7	349	C1	D72175	G2R protein - vari
1.4	164	17.4	348	~	T28623	_
<u>.</u>	164	17.4	349	C1	D36858	gene G4P protein
16	162.5	17.3	327	7	A46484	apoptosis-mediatin
17	161	17.1	461	-	A35356	tumor necrosis fac
18	158.5	16.8	651	7	JC7705	death receptor-6 -
19	147.5	15.7	677	C1	C42125	trophozoite cystei
20	147	15.6	324	7	JC2395	Fas antigen precur
2.1	145		416		JN0006	nerve growth facto
2.5	141	15.0	1680	C4	A43434	furin (EC 3.4.21.7
23	139.5	14.8	250		A49053	CD27 antigen precu
2.4	139.5	14.8	260	~	A46517	tigen
5.2	139.5	14.8	277		A60771	B-cell activation
56	134	14.2	1548	7	S34583	serine proteinase
2.1	132	14.0	668	C1	G02428	subfilisin like pr
28	132	14.0	915	7	JC6148	subtilisin-like pr
2.9	131.5	14.0	272	7	148700	gene ox40 protein

FAS soluble profet	apoptosis mediatin	CD30 antique precu	hypothetical profe-	probable laminin a	OX40 antiqen precu	probable transcrip.	artivator of cAMP	furin (EC 3.4.21.)	furin (EC 3,4,21,7	hypothetical prote-	OX40 hemolog hum	masking protein pr	four and a half to	subtilisin like pr	notch t protein
137383	A40036	A42986	T23433	T37316	S12783	A48830	J27686	T43251	S4 3656	T27283	137552	A38261	106565	A48225	345306
7	7	C1	C1	C	C1	C#	c į	7	7	c a	C3	c į	c:	-	c
314	335	n, C, n,	3672	3704	271	728	187	1299	837	1620	277	1712	5.10	915	2318
6.	13.9	13.7	13.2	13.2	13.0	13.0	9.55	12.6	12.5	12.5	12.4	12.3	12.5	12.2	12.2
13				-	S	22	120	19	118	5.	116.5	5.5	gr.	15	115
	130.5	129	124	12	122.5	1	7	-	_	117	116	115	1	1	1

ALIGNMENTS

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human ognoti tumor necrosis factor receptor 1 procursor (validated)

N. Contains: tumor necrosis factor alpha inhibitor; tumor necrosis factor binding profess. N,Alternate names. P55 tumer negrésis factor receptor, TMP receptor type l

Cispecies: Homo sapiens (man)
Cispecies: Homo sapiens (man)
Solum-1992 #sequence_revision 30.dun-1992 #text change 08 Dec 1980)
Cistoression: A38208 A34899; A34900; A36555; C36555; A8281; S12617; JT6718; A60.41; A40.
Ribuchs, P.; Strehl, S.; Dworzak, M.; Himmler, A.; Ambros, P.F.
Aprens, P.; Strehl, S.; Dworzak, M.; Himmler, A.; Ambros, P.F.
A;Title: Structure of the human TNF receptor 1 (ps0) gene (TNRF1) and localization to du. A;Reference number: A38208; MUID:92250049; PMID:1315717

A; Accession: A38208

A;Molecule type: DNA A;Residues: 1-452 FPUC. A;Cross-references: GR:M75864; GB:M75865; GB:M75866; NID:q339748; PIDN:AAArluchil, PiD:er-R;Loetscher, H.; Pan, Y.C.E.; Lahm, H.W.; Gentz, R., Rrockhaus, M., Tahuch:, H.; Leeslan R;Loetscher, H.; Pan, Y.C.E.; Lahm, H.W.; Gentz, R., Rrockhaus, M., Tahuch:, H.; Leeslan R;Leetscher, H.; Pan, Y.G.E.; Lahm, H.W.; Grutz, R., Rrockhaus, M., Tahuch:, H.; Leetsland A;Title: Molecular cloning and expression of the human 55 kd tumor preriosis factor recept A;Reference number. A34899, MUID:90235284, PMID:2158862

A; Accession: A34899

A;Molecule type: mRNA A;Residues: 1-455 <LOE> A;Cross-references: GB MSR286; GB:M33480; NID:q339753; PIDN:AAA377531; PID:qx^{34q}754

A; Experimental source. placenta

A,Note: part of this sequence, including the amino end of the mature proferin, confirmed R;Schall, T.J.; Lewis, M.; Koller, K.J.; Lee, A.; Picc, G.C.; Wond, J.H.W.; Gatamada, T.Cell 61, 361-370, 1990.
A;Title: Molecular cloning and expression of a receptor for human tumor necressis factors. A;Reference number: A34900, MUID:90235285; PMID:2158863

A, Accession: A34900

A,Molecule type: mRNA
A,Residues: 1-455 <SCH>
A,Residues: 1-455 <SCH>
A,Residues: 1-455 <SCH>
A,Cross-references: GB.M32294, RID.9339744, FIDN.AA62210.1; PID:4339744.
B,Cross-references: GB.M32294, RID.9339744, FIDN.AA62210.1; PID:4339744.
B,Himmler, A. Maurer-Fegy, I., Prenke, M., Scheurich, F.; Pfigrumater, F.; Lante, M., A,Tille: Molecular cloning and expression of human and rat tumor near states and expression of human and rat tumor near states and a,Peference number: A36555, MIIP 11949841, PMID 1762293
A,Molecule type: mRNA

1-455 <HIM> A;Residues:

A; Molecule type: mRNA

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A;Experimental source: cancer patient serum R;Olsson, I., Lantz, M., Milsson, E., Peetre, C.; Thysell, H.; Grubb, A.; Adolf, G. Eur. J. Haemarcl. 42, 276 275, 1289
A;Title: Isolation and characterization of a tumor necrosis factor binding protein from A;Reference number. A60594, MUID.89171156, FMID:2924890
A;Accession: A60594
A,Map position. 12p13.2 12p13.2

A,Introns. 13/3, 65/1, 108/1, 158/1; 184/2, 209/1; 247/1, 256/3; 353/1

C,Superfamily: tumor necrosis factor receptor type 1; NGF receptor repeat homology
C,FGyrards. duplication, 3/ycoprotein, receptor; transmembrane protein
F;1-21/Domain: signal sequence #status predicted <SIGs
F;22-455/Product: tumor necrosis factor receptor 1 #status predicted <MATs
F;30-211/Domain: extracellular #status predicted <EXTs
F;41-201/Product: TWF binding protein 1 (tumor necrosis factor alpha inhibitor) #status
F;44-82/Domain: NGF receptor repeat homology <NG1s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A,Molecule type: protein
A,Residues: 41-45 <ENS>
A,Resperimental source: normal urine
B,Resperimental source: normal urine
R,Kajihara, J., Asada, A, Kirihara, S, Fato, K
Blosci. Bictechnol. Bicchem. 58, 2266-2268, T994
A,Title: Amino acid sequence of natural tumor necrosis factor alpha inhibitor purified
A,Reference number: JC2404, MUID.95128033, FMID:7765720
A,Accession: JC2404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                E,EL3elmann, H., Miwick, D., Wallach, D.
J. Biol. Chem. 265, 1531-1536, 1990
A;Title: Two tumor necrosis factor-binding proteins purified from human urine. Evidence A;Foforence number A75010, MUTD:90110215, PMID 2153136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Residues: 41-43,'X',45-53,'X',55-57 <SEC>
R;Gatanaga, T., Hwang, C., Kohr, W., Cappuccini, F.; Lucci III, J.A.; Jeffes, E.W.B.; Le
Proc. Ma-1 Arad, Sci. U.S. A. 87, 8781-8784, 1999
A;Title: Purification and characterization of an inhibitor (soluble tumor necrosis facto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Residues: 1-13 <KEM>
P;Seckinger, P; Vey, E; Turcatti, G; Wingfield, P; Dayer, J.M.
P;Seckinger, P; Vey, E; Turcatti, G; Wingfield, P; Dayer, J.M.

Eur J Immunol 20; 1:67-1174, 1990
EyTitle: Tumor necrosis factor inhibitor: purification, NH-2-terminal amino acid sequence A;Reference number, A60231; MUID.90292116; PMID.2113477
A;Accession: A60231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Title: Cloning and partial characterization of the promoter for the human p55 tumor ne
A;Reference number: JT0758; MUID:94085779, PMID:8262379
A;Accession: JT0758
A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Note: parts of soluble TNF binding protein 1, including its amino and carboxyl ends, R;Kemper, O.; Wallach, D. Gene 134, 209-216, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Residues: 1-455 <GRA>
A;Cross-references: GB:M37764
A;Note: the authors translated the codon TGG for residue 371 as Thr, AAG for residue 372
A;Note: The authors translated the codon TGG for residue 371 as Thr, AAG for residue 372
R;Nothir; Y; Kemper, O; Brakebusch, C; Engelmann, H; Zwang, R; Aderka, D; Holtmann
                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references. GDB.125913, OMIM.191190
                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Gene: GDB: TNFR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Molecule type: prutein
A;Residues: 41 53,'X',55.144,'X',146 150,'X',152 186,'X',188-201 <KAJ>
A;Experimental source: urine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A, Molecule type. protein
A; Residues: 41-43, 'X', 45-53, 'V', 55-57, 'XK', 60 <OLS>
A; Experimental source: renal failure patient urine
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A; Mulequie type:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tients
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Residues: 1-455 < NOP>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: EMBL:X55313, NID:g37223; PIDN:CAA39021.1; PID:g37224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: S12057
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Comment: This protein is one of two known receptors for both TNF-alpha (cachectin) and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ir, Y., Kemper, O., 1
. 9, 3269-3278, 1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A38258
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C_Superfamily: tumor necrosis factor receptor type 1, NGF receptor repeat homology c_Keywords: glycoprotein; kidney; receptor; transmembrane protein; tumor r_1-29/Domain: signal sequence #status predicted <SIG> F_30.461/Froduct: tumor necrosis factor receptor p55 #status predicted <MAT> F_44-194/Domain: extracellular cysteine rich #status predicted <EXT> F_44-82/Domain: NGF receptor repeat homology <NGI-F_84-126/Domain: NGF receptor repeat homology <NGF-F_84-126/Domain: NGF receptor repeat homology <NGF-F_84-126/Domain: transduction #status predicted <SIT> F_361-447/Domain: signal transduction #status predicted <SIT> F_354,145,151/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Molecule type. protein
A;Residues: 1-7 <SU2>
A;Experimental source: kidney cell line 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gene 163, 263 266, 1995
A;Title: Cloning of the cDNA encoding the porcine p55 tumor necrosis factor receptor.
A;Reference number. JC4302; MUID.96011645; FMID.7590278
A;Accession: JC4302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tumor necrosis factor receptor p55 precursor - pig C;Species: Sus scrota domestica (domestic pig) C,Date: 29-Nov-1995 #sequence_revision 08-Feb-1996 #text_change 23-Jul-1999 C,Accession: JC4302; PC4093
R;Suter, B.; Pauli, U.
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F;235-455/Domain: intracellular #status predicted <INT>
F;54,145,151/Binding site: carbohydrate (Asn) (covalent) #status predicted
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A; Residues: 1-461 < SUT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A/Cross-references: GB:U19994; NID:g1141752; PIDN:AAC48499.1; FID:g1141753
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                                                                                                                           Matches
                                                                                                                                                                             Query Match
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41 ESLCPQGKYSHPQNRSICCTKCHKGTYLHNDCLGPGLDTDCRECDNGTFTASENHLTQCL 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
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                                  1 DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQQDTDCRECESGSFTASENHLRHCL
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                                                                                                                    120,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DSVCPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 100
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                                                                                                                                                    Similarity
                                                                                                                           Conservative
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                                                                                                                                                 76.1%; Score 716.5;
77.4%; Pred. No. 2e
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No. 8.3e-62;
                                                                                                                        Mismatches
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                                                                                                                                                    2e-45;
                                                                                                                                                                          DB 2;
                                                                                                                                                                          Length 461,
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121 KONTVCTCHAGFFLRENECVSCSNCKKSLECTKLC 155

101

61

SCSKCREMGQVEISSCTVDRDTVCGCRKNQYRHYMSENLFQCHOSLCLNGTVHLSCQE 120

Length 454;

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72.3%; Score 680; DB 1; 71.3%; Pred. No. 9.1e-43;
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Query Match 72.3%
Best Local Similarity 71.3%
Matches 112; Conservative
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                                                                                     NyAlternate names: timor necrosis fractions:
(Species: Mus musculus (house mouse)
(Species: Musculus (house mouse)
(Species: Musculus (house mouse)
(Species: Musculus (house)
(S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A)Cross-references GR:M&O46R; NID-g199825; PIDN AAA19751.1; PID:g199826
R1Goodwin, R G; Anderson, D; Jerzy, R; Davis, T.; Brannan, C.I.; Copeland, N.G; Jenk
Mol. Cell. Riol. 11, 3020-3026, 1991
A;Title: Molecular cloning and expression of the type 1 and type 2 murine receptors for A;Reference number: A40254; MUID:91246168; PMID:1645445
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C;Superfamily: tumor necrosis factor receptor type 1; NGF receptor repeat homology
C;Superfamily: tumor necrosis factor receptor type 1; NGF receptor, transmembrane proteil
C;Srywerds: cytckine remether; diplication; glyceprotein; receptor, transmembrane proteil
E;10.29/20main: signal sequence #status predicted <SIG>
E;30.44/Product: tumor necrosis factor receptor type 1 #status predicted <MAT>
E;44.87/20main: wGF receptor repeat homology <NGI>
E;84.126/20main: NGF receptor repeat homology <NGI>
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A;Reference number: S16677; MUID:91285014; PMID:1647956
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C;Comment: This protein is one of two distantly related receptors for both TNF-alpha (ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A,Cross-references: GR-McO468, NID-gl99825, PIDM:AAA39751.1, PID-gl99826
R;Barrett, K.; Taylor-Fishwick, D.A.; Cope, A.P.; Kissonerghis, A.M.; Gray, P.W.; Feldma
Eur. J. Immunol. 21, 1649-1656, 1991
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A;Accession: 157826
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A,Title: Nucleotide sequence of the TNF type I receptor from a mouse endothelioma cell
A,Reference number: [54512] MHID:94245292, PMID:8188324
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F;216 454/Domain: intracellular #status predicted <INT>
F;54,151,202/Binding site: carbohydrate (Asn) (covalent) #status predicted
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R;Pothe, J.G.; Brockhaus, M.; Gentz, R.; Lesslauer, W.
Immuno-peneties 34, 338-340, 1991
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A;Tross references: GB.26349, NID.4430732, PIDN.AAA59361.1; PID:9430733
E;Rothe, J.G.; Bluerhann, H.; Gentz, R.; Lesslauer, W.; Steinmetz, M.
Mol. Immunol. 30, 165-176, 1993
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                                             tumor necrosis factor receptor 1 precursor - mouse
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C,Accession: B36555
B.Himmler, A.; Maurer-Fogy, I.; Kroenke, M.; Scheurich, P.; Pitrunmator, F.; Lantz, M.; C.
DNA Cell Biol. 9, 705-715, 1990
A;Title: Molecular cloning and expression of human and rat tumor merrosis factor receptor A;Peference number: A36555, MHID-41040841; PMID:1702293
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C;Comment: This protein is one of two known receptors for both TNF alpha (cachectin) and
C;Superfamily, tumor necrosis factor receptor type 1, RGF receptor repeat humbloary
C;Koywords: duplication; glycoprotein; receptor; transmembiane protein
F;1-29/Domain; signal sequence #status predicted <SIG>
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2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tumor necrosis factor receptor 1 precursor - rat
Nootains: tumor necrosis factor binding protein 1 (TNF blocking factor)
C.Species, Rattus norvegicus (Torway rat)
C.Date: 30-Jun-1992 #sequence_revision 07-Oct 1994 #text_change_22 Jun 1994
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C,Date: 24-May-1996 #sequence_revision 24 May 1996 #text change 17 Mar 2000
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R;Baens, M.; Chaffanet, M.; Cassiman, J.J.; Van den Rerghe, H.; Matynen, P.
Genomics 16, 214-218, 1993
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                                                                                                                                                                                                                                                                                                             101 SCKTCPKEMPQVEISPCKADMDTVCGCKFNQPQPYLSETHPQCVPCSPCPNGTVT1190KE 160
                                                                                                                                   41 BSLOPQSYYVHSKNNSLOCTYCHYGTYLVSPAPSPATTATFFFFFTASQNYLRQC1. 100
                                                                                                                                                                                                                                                                           61 SCSKCRKEMGQVEISSCTVDRETVCGCRKNQYRHYWSENLFGCFNCHACLMGTVHLSTQK 120
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                                                                                       1 BSVCPQSKY1HPQNNSTCCTKCHKSTYLYNH=155F9GFTRECESSGFTAGFNHLRHCL 60
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19; Mismatches 26; Indels
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68.3%; Pred. No. 5.8e-42;
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A;Reference number: A60204; MUID:8708574; PMID:3025363
A;Accession: A60204
A;Molecule type: prorein
A;Recidues: 29 31,'T',33 42,'TT',45.46,'TX',50.51,'XX',54.56 <MAR>
A;Recidues: 29 31,'T',33 42,'TT',45.46,'TX',50.51,'XX',54.56 <MAR>
A;Experimental source: melanoma cell line A875
A;Note: this sequence has been corrected by a note added in proof to follow the nucleoti R,Vissavajihala, P., Leszyk, J.D., Lin-Goerke, J.; Ross, A.H.
Arch. Bicchem. Birkys. 224, 244-252, 1392
A;Title: Structural domains of the extracellular domain of human nerve growth factor rec A;Peference number: S21689; MUID:92198017; PMID:1372492
A;Accession. S21689
    A Cross references. GB.M21621, MID.g189206, PIDN:AAA36363.1; PID:g189207 C;Comment: This receptor is found on sensory and sympathetic neurons, on neuroblastoma C;Comment: The cysteine-rich region of the extracellular domain may form part or all of C;Comment: This protein is thought to form a high-affinity receptor when it associates
                                                                                                                                                                         A; Mclecule type. DNA
A; Residues: 1-22 < RES>
                                                                                                                                                                                                                                                                                                          A;Title: A constitutive promoter directs expression of the nerve growth factor receptor A;Reference number: I57638; MUID:89096903; PMID:2850481 A;Accession: I57638
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A; Residues: 183-208 < VIS>
R; Sehgal, A.; Patil, N.; Chao, M.
Mol. Cell. Biol. 8, 3160-3167, 1988
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R:Marano, N. Dietzschold, B.; Earley Jr., J.J.; Schatteman, G.; Thompson, S.; Grob, P.

J. Mourriber 48, 225-212, 1987

A;Title: Purification and amino terminal sequencing of human melanoma nerve growth fact
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A;Accession: I54182
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type:_mPNA
A;Molecule type:_mPNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Status: preliminary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
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A;Cross-references: GDB:1230195; OMIM:600979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: GB:L04270; NID:g339761; FIDN:AAA36757.1; FID:g339762
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Species: Homo sapiens (man)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Residues: 1-435 < RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 164 MNHCVPCKÄGHF--QNTSSPSARCQPHTRC 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 123 MTVCT CHACEFLESHECVSCSNCKKSLEC 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VMGLEETAPCTSKEKTQCRCQPGMFCAAWA---LECTHCELLSDCPPGTEAELKDEVGKG 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EWGGVEISSCTVERETVOGGERKNGYRHYWSENLFQCFNCSL---CLNGTVHLSCQE--KQ 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EYYEPQHR-ICCSRCPPGTYVSAKC-SRIRDTVCATCAENSYNEHWNYLTICQLCRPCDP 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1-427 <JOH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19.9%;

    $; Score 187.5; DB 2; Length 4
    $; Fred. No. 7.4e-07;
    17; Mismatches 71; Indels

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 435;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         growth facto
                                   A;Molecule type: DNA
A;Residues: 1-22 <KIS>
A;Residues: 1-22 <KIS>
A;Residues: 1-22 <KIS>
A;Cross-references: EMBL:X87128; NID:g809043; PIDN:CAA60618.1; PID:g809044
A;Cross-references: EMBL:X87128; NID:g809043; PIDN:CAA60618.1; PID:g809044
C;Superfamily. tumor necrosis factor receptor type 2; NGF receptor repeat homolo
C;Keywords: cytckine receptor; transmembrane protein
F;1-22/Domain: signal sequence #status predicted <SIG>
F;1-22/Domain: signal sequence #status predicted <SIG>
F;23-474/Product: tumor necrosis factor receptor type 2 #status predicted <MAT>
F;40-77/Domain: NGF receptor repeat homology <NG1>
F;40-77/Domain: NGF receptor repeat homology <NG1>
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F;79-120/Domain: NGF receptor repeat homology <NG2>
                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Accession:
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F.109-147/Domain. NGF receptor repeat homology <NG3>
F.149-189/Domain: NGF receptor repeat homology <NG4>
F.159-248/Region: serine/threonine-rich
F.251-272/Domain: transmembrane #status predicted <TRM>
F.251-272/Domain: intracellular #status predicted <TRM>
F.273-427/Domain: intracellular #status predicted <TRM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; Keywords: duplication; glycoprotein; heterodimer; monomer; phosphoprote F;1-28/Domain: signal sequence #status predicted <51G> F;1-28/Domain: signal sequence #status predicted collection #status experimental <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              F,29-250/Domain: extracellular #status predicted <EXT>F,32-65/Domain: NGF receptor repeat homology <NG1>F;67-108/Domain: NGF receptor repeat homology <NG2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 F;60/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Map position: 17q21-17c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C; Comment: This receptor undergoes both N- and O-linked glycosylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: GDB:120234; OMIM:162010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Superfamily: nerve growth factor receptor; NGF receptor repeat homology;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
141 KONTVCEECPDGTYSDEANHVDPCLPCTVCEDTERQLRECTR 182
                                                                                                                                                                                                                             63 SKCRKEMGQVEISS-CTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGT-VHLSCQE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                   4 CPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCREC-ESGSFTASENHLRHCLSC 62
                                                                            KONTVC-TCHAGFFLRE----NECVSCSNC----KKSLECTK 153
                                                                                                                                                 TEC---VGLQSMSAPCVEADDAVCRC---AYGYYQDETTGRCEACRVCEAGSGLVFSCQD 140
                                                                                                                                                                                                                                                                                                      CPTGLYTH----SGECCKACNLGEGVAQPC-GANQ-TVCEPCLDSVTFSDVVSATEPCKPC 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       25; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 182.5; DB 1
Pred. No. 1.7e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        monomer; phosphoprotein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 427;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        receptor;
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A;Cross-references: GB:M60469; NID:g199827; PIDN:AAA39752.1; FID:g199828 R;GoodWin, R.G.; Anderson, D., Jerzy, R.; Davis, T.; Brannan, C.I.; Copeland, N.G.; Jenk Mol. Cell. Biol. 11, 3020-3026; 1991 A;Title: Molecular cloning and expression of the type 1 and type 2 murine receptors for A;Reference number: A40254; MUID.91246168; PMID:1645445 tumor necrosis factor receptor type 2 precursor - mouse C,Species: Mus musculus (house mouse)
C,Species: Mus musculus (house mouse)
C,Date 30.7un-1992 #sequence revision 30 Jun-1992 #text_change 23-Jui-1999
C;Accession: B38634; A40254; \$54816 A;Cross-references: GB:M60469; NID:9199827, PIDN.AAA39752:1; FID:9199828
R;Kissonerghis, M.; Fellowes, R.; Feldmann, M.; Chernajovsky, Y.
submitted to the EMBL Data Library, May 1995
A;Description: Characterization of the promoter region of the murine p75-TNF receptor. A; Molecule type: mRNA A; Residues: 1-474 <GOO> A;Reference number: A38634; MUID:91187885, PMID:1849278 A;Accession: B38634 R;Lewis, M.; Tartaglia, L.A.; Lee, A.; Bennett, G.L.; Rice, G.C.; Wong, G H W ; Chen, E Proc. Natl. Acad. Sci. U.S.A. 88, 2830-2834, 1991 A;Title: Cloning and expression of cDNAs for two distinct murine tumor necrosis factor r A; Reference number: S54816 A; Accession: A40254 A; Molecule type: mRNA 1-474 <LEW> S54816

repeat homology

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A, Residues. 1.325 < UPT>
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A, Residues: 1-20 <MET>
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                                                                                                                                                                   Query Match
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AJECFORGENION: R43692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RiUpton, C.; Macen, J. L.; Schreiber, M.; Mcfadden, G.
Virolony 184, 370-382, 1991
A;Filo: Myxoma virus expresses a secreted protein with homology to the tumor necrosis
A;Reference number: A40566; MUID:91335768; PMID:1641597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A)Cross references: GB:M95181; GB:M37976; NID:g332309, PIDN:AAA46612 1; PID:g332310
C;Superfamily: myxoma virus T2 protein; NGF receptor repeat homology
C;Keywords: qlycoprotein
                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  F,64-105/Domain: NGF receptor repeat homology <NG2>
F,106 :47/Domain: NGF receptor repeat homology <NG3>
F,66,181,205,238/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           T2 protein rabbit fibroma virus
C;Species: rabbit fibroma virus, Shope fibroma virus
C;Date: 10.Sep-1993 #sequence_revision 30.Sep-1993 #text_change 07-May-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: myxoma virus
C;Date: 11 Dec-1992 #sequence_revision 31-Dec-1992 #text_change 18-Jun-1999
                                                                                                                                                                                                                                                                        6) SKCPKEMGQVEISSCTVDRDTVGGCPKNQY----PHYWSENLFQCFNCSLCLNG-TVHLS 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92 ESOSCDKTRPRVCPGSAGNYCLLKGQBGCPICAPKTKCPAGYGVSGHTRTGDVLCTKCP 150
                                                                                                                                                                                                                                                                                                                           99 SSCTTTD -- OVEIPACTKOONPVCACEAGPYCALKTH -- SGSCPOCMPLSFCGPGFGVASS 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19.1%; Score 179.5; DB 1; Length 326;
27.4%; Pred. No. 2.3e.06;
ative 19; Mismatches 67; Indels 49; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9) RHYWSENLFOCFNCSLCLNG-TVHLSCOEKONTVCTCHAGFFLRENECVSCSNCKKSLEC 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          151 RYTYSDAVSSTETCTSSENYISVEFNLYPVNDTSCTTTAG----PNEVVKTSEFSVTLNH 206
                                                                                                                Gaps
                                                                                                                                                                                                                  40 COISOEYYDRKAQMCCAKCPPGOYVKHFC-NKTSDTVCADCEASMYTQVWNQFRTCLSCS 98
                                                                                                                                                             4 CPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCLSC+ 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13 ONNSICCTKCHKGTYLYNDCPGPGQDTDCPEGESGSFTASENHIRHCLSC-SKCRKEMGQ 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34 EKDALGETSEPPGSYASPIC-GPGSPTVCSPCKNETFTASTNHAPACVSCRGRETGHLS: 91
                                                                                                             Indels 14,
                                                        Ourry Match 19.2%; Score 181; DB 2; Length 474; Rest Loral Similarity 31.7%; Pred. No. 2 30-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  118 COEKQNTVC-TCHAGFFLPENECVSCSNCKKSLECTKLTLP 157
                                                                                                                                                                                                                                                                                                                                                                                                                  Fil66 201/Domain: NGF receptor repeat homology <NG4>
                                                                                                          20, Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       T2 protein - myxoma virus (strain Lausanne)
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Virology 160, 20-30, 1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             72 VEISSCHUNPHTVCGCPFNQY----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ouery Match
Rost Local Similarity 27.45,
Local Similarity 27.45,
Local Similarity 27.45,
                                                                                                             51; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Residues: 1.326 < UPT>
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A;Molecule type: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  207 TD-CDP 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; Accession: A40566
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AjMolecule type: mRNA
AjResidues: 1-425 RAD.
A,Cross-references: GB:XO5137, RID.956755, PICHLCAA28781.1; PID:quarthus
A,Cross-references: GB:XO5137, RID.956755, PICHLCAA28781.1; PID:quarthus
RjMetsis, M.; Timmusk, T.; Allikmets, R.; Saarma, M.; Perskon, H.
R,Metsis, M.; Timmusk, T.; Allikmets, R.; Saarma, M.; Perskon, H.
A,Title: Regulatory elements and transcriptional regulation by testesterone and retinous
A,Reference number: PH1229, MUID.93077038, FMID.1446821
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(Supportanily) nerve growth factor receptor; NGF receptor repeat hemology
(Supportanily) nerve growth factor receptor; estimate, phosphryrers; crequent, phosphryrers; crequent, phosphryrers; crequent, phosphryrers; credited (SIG)

F)1-29/Domain: signal sequence #status predicted (SIG)
F)20-25/Product: nerve growth factor receptor #status predicted (ATT)
F)30-25/Product: nerve growth factor receptor repeat homology (NG)
F)31-66/Domain: NGF receptor repeat homology (NG)
F)110-148/Domain: NGF receptor repeat homology (NG)
F)150-190/Domain: NGF receptor repeat homology (NG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C.Species: Rattus norvegicus (Norway rat.)
C.Species: 10-Sep-1999 #sequence_revision 10-Sep-1999 #frext_change 10 Sep. 1900
C.Saccesion: A26431; PH1229
C.Saccesion: A26431; PH129
Nature 325, 593-597
A.Tifler Gene transfer and molecular cloning of the rat netwer though factor troughts
A.Reference number. A26431, MUID:87115859, FMID:3027880
A.Reference number. A26431
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                                                                                                                                                                                                                                                                                                                                   62; Indels (0); Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                34 EKDGLCCASCHPGFYASPLC GPGSMTVCSPCEDGTFTASTMHAPACVSCRGPCTGHLS
A.Cross-references: GB:M17433
C,Superfamily, myxoma virus T2 protein, HGF receptor repeat homology
F;64-105/Domain: NGF receptor repeat homology <NG2>
F,106-147/Domain: NGF receptor repeat homology <NG3>
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2.52.279/Domain: transmembrane #status predicted <MEM>
F;274-428/Domain: intracellular #status predicted <INT>
F;61/Binding site: carbohydrate (Asn) (covalent) #status predict***
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Matches 50; Conservative 25; Mismatches 68;
                                                                                                                                                                                                                                       DB 2,
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Best Local Similarity 29.6%, Pred. Ep. 3e 96;
Matches 45; Conservative 15; Mismatches 6
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C;Comment: This receptor is fo
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Bicell-associated surface models:
CySpecies: Mus musculus (house mouse)
CyDute: 13 ULL 1971 #Frequence_revision 16:Nov:1994 #Frext_flat.ject7-Nov 2000
CyAccession: A46476; A46515
ExTructes: 8 M.; Clark, E.A.
U. Thomanol: 146, 620-626; 1992
A/Title: Difference incorrate of an alternatively polyadenylated mRNA species of muling A/Reference number: A46476; MUID:92105763; PMID:1370315
A/Arransion: A46476
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A;Rite sequence extracted from NCDI backbine (MCBIM.75206, NCBIP:75207)
A;Note: this translation is not annotated in GenBank entry MUSCD40A, release 113.0
p;Octimaldi, J.C., Torres, F. Forek, C.A., Chang, F., Clark, E.A., Howard, M., Cockayne, J. Timmunol. 149, 3921-3926, 1922
A;Title General 3921-3926, 1922
A;Reference number: A46515; MUID:93994586; PMID:1281194
A;Reference number: A46515; MUID:93994586; PMID:1281194
A;Actionists A46515
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          A; Mote. seguence extracted from MCBI backhone (NCBIP-120357) C; Comment: For an alternative splice form, see PIP-A46515
                                                                                                                                                                                                             A,Ordis references, GP Medall, NID.glf53058, FIDMHAAB08705.1; PIDHglf53059, GB.M94116, A,Experimental source: BALB/c, liver
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A;Residues: 1-305 <TOR>
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CySuperfamily, tumor necrosic factor receptor type C, NOF receptor repeat homology
Fylti 188/Comain NOF receptor repeat homology (NGF)
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A)Reference number: 148854, MUID 05178848, PMID:7873884
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Mamm. Genome 5, 726-727, 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene murine tumour necrosis for a receptor 2 protein \cdot mouse (fragment) C/Species: Mus musculus (house mouse)
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C, Superf
A;Status: preliminary; translated from GB/EMBL/DDBJA;Molecule type: DNA \(\lambda_i\);Pesidues: 1-348 <MAS>
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A;Reference number: 200488; MUID:94088747; PMID:8264798
A;Accession: 728623
                                                      C;Accession: T28623

F;Massung, R.F., Esposito, J.J., Liu, L.I.; Qi, J., Utterback, T.E., Knight, J.C.; Aubin Nature 366, 748-751, 1993

A;Title: Potential virulence determinants in terminal regions of variola smallpox virus
                                                                                                                                                                                      hypothetical protein G2R - variola major virus
C,Species, variola major virus
C,Sate, 22-Oct.1999 #sequence_revision 22-Oct.1999 #text_change 11-Jul 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Description: Analysis of the complete coding sequence of DNA of alastrim variola minor A;Reference number: A/2150 A;Accession: D72175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1,Comment: For an alternative splice form, see EIR:A46476
C,Superfamily: CD27 antigen, NGF receptor repeat homology
C;Keywords: alternative splicing; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-349 <SHC>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   submitted to GenBank, March 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Shchelkunov,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Cross-references: GB:Y16780; NID:g5830555; PIDN:CAB54798.1; PID:g5830759
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Superfamily: myxoma virus T2 protein; NGF receptor repeat homology,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          118 CORMONTVOTCHAGEFLEENECVS---CSNC----EKSLECTKLCLFOIEN 161
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88 GRCMS--MQVETRSCMTTHMRICECSPGYY------CLLKGSSGCKACVSQT--
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CKETEY -- FERHALDOLEOF PETYASEL DESK-TATOCTPOSESTETSKANHLFACLSON 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -KCRKEMGQVEISSCTVERDTVCGCRKNQYRHYWSBNLFQCF----NCSLCLNGTVHLS 117
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        KCGIGYGVSGHTSVGEVICSFCGFGTYSYTVSSIDKCEFVPNN 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Totmenin, A.V.; Gutorev, V.V.; Safrenev, P.E., Massang, E.E., Lupar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DGQCCDLCQPGSRLTSHCTAL-EKTQCHFCDSGEFSAQWNFEIRCHQHR 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels 43;
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A.Revaldues: 1.349 «KOL»
A.Cross references EMBL.XC7117; NID-G516428, FIDN CAA47540 1; PID-G516449
A.Cross references strain India-1967, isolate Ind3
R.Shchelkunov, S.N.; Blinov, V.M.; Sandakhchiev, L.S.
FEBS Lett. 319, 80-83, 1993
A.Title: Genes of variola and vaccinia viruses necessary to overcome the host protective
A.Reference number G12185, MIID, 01202291; PMID, 8194179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ajcross references: GB.X69198; NID:g456758; PIDN:CAA49137.1; PID:g457087
AjExperimental Source: strain India-1967, ssp. major, isolate Ind3
B:Rolykhalov, A.A.; Blinov, M. Gyrorov, V.V.; Pozdnyakov, S.G.; Chizhikov, V.E.; Frol submitted to the EMBL Data Library, April 1997
Ajbescription: Nucleotide sequence analysis of the region of Variola virus XhoI F O H P Ajecrence number: S46868
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C,Date: 10-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 23-Mar-2001
C,Accession: D36858; S46888; S32385; S35987
A;Cross references: EMBL:L22579; NID:q623595; PIDN:AAA60933.1; PID:g439102
A;Experimental source: strain Bangladesh 1975
                                                                                                                                                                                                                                                                                                                                                                                                   64 KORKEMGOVEISSCTVDPDTVCGCPKNQVRHYWSENLPQCF ... NCSLCLNGTVHLS 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 87 GRCNS--NQVETRSCNTTHNRICECSPGYY-----CLLKGSSGCKACVSQT---- 130
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                                                                                                                                                                                                 Indels 38; Gaps
                                                                                                                                                                                                                                                               4 CPQ REYTHPONNSTOTTMENTERNINGPOPAGOTIONPERCESSSPIASENHIPHCLSCS 63
                                                                                                                                                                                                                                                                                                                          31 CKDTEY---KRHNLCCLSCPPGTYASPLCDSK-TNTQCTPCGSGTFTSRNNHLPACLSCN 86
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                                                                 C, Superfamily: myxoma virus T2 protein; NGF receptor repeat homology
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                                                                                                                               Ouery Match 17 4%; Score 164; DB 2; Length 348; Best Local Similarity 27.8%; Pred. No. 3.3e-05; Matches 42; Conservative 17; Mismatches 54; Indels 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene G4R protein - variola virus
N,Alternate names: B28R protein (COP)
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A;Cross references: EMBL:X69198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     42; Conservative
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A;Accession: D36858
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A;Molecule type: DNA
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DE 88 GRCMS--NQVETESCNTTHNRICECONGYY CLLFGSSGCFAACVCTT

QY 118 CQEKQNTVCTCHAGFELRENECVS---CSNC 145

Db 132 -------KCGIGYGVSGHTSVGDVICSPC 153

Search completed January 6, 2003, 033-59339

Job time: 25 secs
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700		 -		
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	244			

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OM protein - profein search, using sw model

January 6, 2003, 03:46:34; Search time 14 Seconds Run on:

(without alignments)
476.978 Million cell updates/sec

US-09-882-735-2 Perfect score:

CSNCKKSLECTKLCLPQIEN 161 1 DSVCPQGKYIHPQNNSICCT. Sequence:

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

112892 seqs, 41476328 residues Searched:

112892 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DR seq length: 2000000000

Maximum Match 100% Listing first 45 summaries Post processing: Minimum Match 0%

SwissProt 40:* Database :

Prod. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		عين			SUMMARIES	
Result		Query				
CN	Score	Match	Length	DB	ID	Description
1	941	100.0	455	-	TRIA HUMAN	P19438 homo sapien
2	716.5		461	-	TRIA PIG	5 sus s
~	680		454	-	TP1A_MOUSE	P25118 mus musculu
4	674.5	717	471	7	TP1A_BOVIN	1 bos
ſ	699	71.1	461	7	TRIA_RAT	P22934 rattus norv
9	200.5	21.3	176	-	TR23_MOUSE	Q9er63 mus musculu
.1	200.5	21.3	417	~	TF12_HUMAN	Q93038 h tumor nec
œ	198.5	21.1	180	-	TR22_MOUSE	พนธ ก
б	187.5	19.9	435	-	TNR3_HUMAN	P36941 homo sapien
10	182.5	,	427	-	TR16_HUMAN	homo
11	181.5	19	417	_	TR16_MOUSE	mus m
12	181	19.2	474	7	TR1B_MOUSE	P25119 mus musculu
1.3	179.5	19.1	326	7	VT2_MYXVL	-
14	178	18.9	325		VT2_SFVKA	P25943 shope fibro
1,5	176.5	18.8	332		TNR6_PIG	077736 sus scrofa
16	176.5	18.8	425	-	TR16 RAT	P07174 rattus norv
17	167.5	17.8	289		TNP = MOUSE	27512 mus
18	167.5	17.8	415	-	TNR3_MOUSE	P50284 mus musculu
61	167	17.7	593	-	TNRS_BOVIN	pos
5.0	166.5	17.7	323	7	TNR6_BOVIN	
77	166.5	17.7	349	-	CRMB_CAMPS	-
22	164	17.4	349	٦	CRMB_VARV	
8	164	17.4	351	-	CRMB_COWPX	073559 cowpox viru
4	_	17.4	401	-	T11R_HUMAN	homo
25	162.5	17.3	C1	-	TNPA_MOUSE	9
56	161	17.1	461	-	TR1B_HUMAN	P20333 homo sapien
27	158	16.8	401	-	T11B_RAT	OA8727 rattus norv
2.8	154	16.4	0	-	T11B_MOUSE	008712 mus musculu
σ (÷	147		2	-	TNR6_RAT	
30	145	15.4	416	-	TR16_CHICK	9 gallu
7	142	15.1	283	-4	TR14_HUMAN	homo
c: *	142	15.1	386	~	T10D_HUMAN	Q9ubn6 homo sapien
~	141	15.0	1680		FUR2_DROME	P30432 drosophila

P41272 mus musculu		614798 h tumor nec	P26842 home sagren	O14763 homo sapien	O9n;1% branchicsto	Q04592 mus musculu	P92127 qiardia lam	Ogepus mus musculu	092824 homo sagnen	P47741 mus musculu	P25445 homo sapien
TNR7 MOUSE	TNR5 HUMAN	T10C HIMAN	TNR7 HUMAN	T10B HUMAN	PCK5_BRACL	PCK5_MOUSE	VS41 GIALA	TR21 MOUSE	PCK5_HUMAN	TNR4 MOUSE	TNR6 HUMAN
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250	277	259	260	440	1696	1877	687	655	913	272	335
14.8	14.8	14.8	14.7	14.6	14.2	14.2	14.1	14.1	14.0	14.0	13.9
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ALIGNMENTS

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MEDLINE=90235285; PubMed=2158863;
Schall T.J., Lewis M., Koller K.J., Lee A., Rice G.C., Wong G.H.W.,
Geranaga T., Granger G.A., Lentz P., Raah H., Kohr W.J., Gooddol D.V.,
"Molecular cloning and expression of a receptor for human tumes."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Himmler A., Maurer-Pogy I., Kroekke M., Scheurich P., Pfizenmaior K., Lantz M., Olsson I., Hauptmann R., Stratowa C., Adolf G.R., "Molecular cloning and expression of human and rat tuner nest factor receptor chain (p60) and its soluble derivative, tumon nerrosis factor-hinding protein.";

DNA Cell Biol. 9:705-715(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-91006021, PubMed-1698610,
Nophar Y., Kemper O., Brakebusch C., Engelmann H., Zwang F.,
Aderka D., Holtmann H., Wallach D.,
Soluble forms of tumor and state forms (TNF-Rs). The CDNA
for the type I TNF-P, cloned using amine acid sequence data of its
soluble form, encodes both the cell surface and a soluble form of the
                                                 01-FEB-1991 (Rel. 17, Created)
01-FEB-1991 (Rel. 17, Last sequence update)
01-FEB-1991 (Rel. 17, Last sequence update)
Tumor necrosis factor receptor superfamily member 1A precursor (p60)
(TNF-R1) (TNF-R) (P55) (CD120a) (Contains: Tumor necrosis factor
Dainding protein 1 (TBP1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-90235284; PubMed-2158862; Lotts R., Brockhaus M., Loetscher H., Pan Y.-C.E., Lahm H.-W., Gentz R., Brockhaus M., Tabuchi H., Lesslauer W.; "Mojecular cloning and expression of the human 55 kd tumor necrosus
                                                                                                                                                                                                     Eukaryoka, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N A , AND SEQUENCE OF 41-53; 110 124 AND 199 201.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gray P.W., Barrett K., Chantry D., Turner M., Feldman M.;
                 455 AA.
                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-91017509; PubMed=2170974;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBO J. 9:3269-3278(1990).
                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                             necrosis factor.";
Cell 61:361-370(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cell 61:351-359(1990).
                                                                                                                                                                                     Homo sapiens (Human)
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                                                                                                                                                                                                                                          NCBI_TaxID=9606;
             TR1A HUMAN
P19438;
TRIA HUMAN
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McDermott M.F., Aksentijevich I., Galon J., McDermott E.M., Ogunkolade B.W., Centola M., Mansfield E., Gadina M., Karenko L., Pettersson T., McCarthy J., Frucht D.M., Aringer M., Torosyan Y., Teppo A.-M., Wilson M., Karaarsian H.M., Wan Y., Todd I., Wood G., Schlingen P., Kimarajeewa T.P., Copper S. M., Vella J.P., Amos C.I., Mulley J., Quane K.A., Molloy M.G., Rnaki A., Powell R.J., Hitman G.A., O'Shea J., Kastner D.L.;
"Germine mutations in the extracellular domains of the 55 kDa TNF receptor, TNFRI, define a family of dominantly inherited autoinflammatory syndromes",
Cell 97:133-144 (1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 X PAY CRYSTALLOGRAPHY (2.85 ANGSTROMS) OF 30-211 IN COMPLEX WITH TNF MEDILES 9325809; FubMod-8387891; Pannor P W., P'Arcy A., Janes W., Gentz P., Schoenfeld H.-J., Broger C., Loetscher H., Lesslauer W.; "Crystal structure of the soluble human 55 kd TNF receptor-human TNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           X RAY SYNSTALLSSPARHY (1.88 ANSSTROMS) OF 41-202.
MEDLINE=9/094982; PubMed=8939750;
Naismith J H, Devine T.C, Khono H, Sprang S.R.;
"Structures of the extracellular domain of the type I tumor necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Engelmann H., Novick D., Wallach D.;
"Two tumor necrosis factor-binding proteins purified urine. Evidence for immunological cross-reactivity witumor necrosis factor receptors.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-92250049; FubMed-1315717;
Fuchs P., Strehl S., Dworzak M., Himmler A.,
"Structure of the human TNF receptor 1 (p60)
localization to chromosome 12p13.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    factor receptor.";
Structure 4:1251:1262(1996)
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Proc Natl Acad
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Cloning of human tumor necrosis factor (TNF) receptor cDNA and expression of recombinant soluble TNF-binding protein."; Pro- Narl Acad Sci U.S.A. 87-7380-7384(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VAFIANTS PHF ASG-59, TYR-62, MET-79, PHE-81, ARG-117 AND TYR-117
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                                                                                                                           STATE and activation of the acid sphingomyelinase.
SUBURIT. THE BINDING TO THE EXTRACELLULAR DOMAIN OF THERI LEADS TO HOMOTERMERIZATION, ONCE AGGREGATED THE BECEPTORS DEATH DOMAINS PROVIDE A NOVEL MOLECULAR INTERFACE THAT INTERACTS SPECIFICALLY WITH THE DEATH DOMAIN OF TRADD. VARIOUS TRADD-INTERACTING PROTEINS SUCH AS TRAFS, RIP AND POSSIBLY FADD, ARE RECRUITED TO THERI COMPLEX BY THEIR ASSOCIATION WITH TRADD. THIS COMPLEX ACTIVATES AT LEAST TWO DISTINCT SIGNALING CASCADES, APOPTOSIS AND
                                                                                                                                                                                                                                                                                                                                                    FUNCTION: Receptor for INFSF2/INF-alpha and homotrimeric INFSF2/Jymphotoxin-alpha The adaptor molecule FADD recruits caspase-8 to the activated receptor. The resulting death-inducing signaling complex (DISC) performs caspase-8 proteolytic activation which initiates the subsequent cascade of caspases (aspartate-which initiates the subsequent cascade of caspases (aspartate-which initiates the subsequent cascade of caspases)
                                       NF-KAPPA B SIGNALING.
SUBCHILULAR LOCATION: Type I membrane protein and secreted.
SUBCHILULAR LOCATION: Type I membrane protein and secreted.
SUBCHILULAR LOCATION THAT INDUCES A-SWASE IS PROBABLY IDENTICAL
THE DEATH DOMAIN. THE N-SMASE ACTIVATION DOMAIN (NSD) IS BOTH
                                                                                                                                                                                                                                                                                                          specific cysteine proteases) mediating apoptosis. Contributes to the induction of noncytocidal TNF effects including anti-viral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complex: implications for TNF receptor activation."; 73:431-445(1993).
                       NECESSARY AND SUFFICIENT FOR ACTIVATION OF N-SMASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OF 41-45
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FubMed=10199409;
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form is produced from the membrane form by
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348 441 58 72 81 99 117 125 143 158 166

DOMAIN

N-SMASE ACTIVATION DOMAIN (NSD).

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EMBL, M33294, AAA03210.1; -.
EMBL, M58286, AAA16753.1; -.
EMBL, M58286, AAA16754.1; -.
EMBL, M75866, AAA61201.1; -.
EMBL, M75864, AAA61201.1; JOIN
EMBL, M75865, AAA61201.1; JOIN
EMBL, M75865, AAA61201.1; JOIN
EMBL, M60275, AAA36756.1; -.
EMBL, K60275, AAA36756.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProDom; PD000771; TNFR C6; 1.
SWART; SM00005; DEATH; 1.
SWART; SM00208; TNFR, 4.
PROSITE; PS00052; TNFR NGFR 1; 3.
PROSITE; PS50050; TNFR NGFR 2; 3.
PROSITE; PS50017; DBATH DOMAIN; 1.
                                                                                                                                                                                                                                       REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                     CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for no entities requires a linears assistance.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Receptor; Apoptosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MIM; 191190;
MIM; 142680;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIR; A34899; GQHUT1.
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                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disease mutation; Polymorphism; 3D-structure.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam; PF00531; deat\overline{h}_i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ffam; FF00020; TNFR_c6; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genew;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PIR; A38208; A38208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR001368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nterPro; IPR000488;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               myalgia.
SIMILARITY: CONTAINS 4 TNFR-CYS REPEATS.
SIMILARITY: CONTAINS 1 DEATH DOMAIN.
SIMILARITY: CONTAINS 1 DEATH DOMAIN.
DATABASE: NAME=PROW; NOTE=CD guide CD120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   proteolytic processing.

DISEASE: Defects in TNFRSF1A are a cause of autosomal dominant familial hibernian fever (FHF), a disease characterized by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DATABASE: NAME=PROW; NOTE=CD guide CD120a entry; WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd120a.htm"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     recurrent fever, abdominal pain, localized tender skin lesions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1EXT;
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INCF; 07-DEC-95.
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S12057; S12057.
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TNFR-CYS
                                                                                                                                                                                                                                                                                                              CYTOPLASMIC
                                                                                                                                                                                                                                                                                                                                                                      SUPERFAMILY MEMBER 1A, MEMBRANE FORM TUMOR NECROSIS FACTOR BINDING PROTEIN
                                                                                                                                                                                                                                                                                                                                   POTENTIAL
                                                                                                                                                                                                                                                                                                                                                   EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                            TUMOR NECROSIS FACTOR RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (See http://www.isb-sib.ch/announce,
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Righaling complex (DEG) performs caspase 8 proteolytic activation which initiates the subsequent cascade of caspases (aspartate-specific cysteine proteases) mediating apoptosis (89 similarity).

SURGNIT THE RINDING TO THE EXTRACELLUCAR DOMAIN OF THEP LEADS TO HOMOTRIMEP LATION ONCE AGGREGATED THE RECEPTORS DEATH DOMAINS PROVIDE A NOVEL MOLECULAR INTEPRACE THAT INTERACTS SPECIFICALLY WITH THE DEATH DOMAIN OF TRADD. VARIOUS TRADD. INTERACTING PROTEINS SICH AS TRARS, PIP AND POSSIBLY FAND. THIS COMPLEX ACTIVATES AT LEAST TWO DISTINCT SIGNALING CASCADES, APOPPOSIS AND NF-KAPPA B SIGNALING (BY SIMILARITY).

SUBCELLULAR LOCATION: Type I membrane protein.

SUBCELLULAR LOCATION: Type I membrane protein.
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                                                                                                                  41 DSVCPQGKYIHPQNNSICTTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL 100
                                                                                                                                                       61 SCSKOPKEMGQVEISSCTVDPPTVCGCPKNQYRHYWSENLFQCFNGSLCLMGTVHLSCQE 120
                                                                                                                                                                        TNFSF1/lymphotoxin-alpha. The adaptor molecule FADD recruits caspase-8 to the activated receptor. The resulting death-inducing
                                                                              9
                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                     01 OCT 1996 (Rel. 34, Last sequence update)
15 JUN 2002 (Rel. 41, Last annotation update)
Tumor necrosis factor receptor superfamily member 1A precursor (p60)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-Kidney;
MEDLINE-96011645; PubMed=7590278;
Suter B., Pauli U.H.;
"Cloning of the cDNA encoding the porcine p55 tumor necrosis factor
                                                                          1 DSVCPQGKYTHPQNNSTCCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chordata, Craniata, Vertebrata, Euteleostomi,
Cetartiodactyla, Suina, Suidae, Sus.
                                       0;
Ouery Match 100 0%; Score 941; DR 1; Length 455; Best Local Similarity 100 0%; Pred No. 1 26-71; Matches 161; Conservative 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gene 163:263-266(1995).
-!- FUNCTION: Presenter for INFSE2/TWF alpha and homotrimoric
                                                                                                                                                                                                                                      121 KONTVOTOMAGRELPENEOVSOSNOKKSLEOTKLOLPOTEN 161
                                                                                                                                                                                                                                                       461 AA
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                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                    01-OCT-1996 (Rel. 34, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR000488; Death.
InterPro; IPR001388; TNFR c6.
Pfam; PF00020; TNFR c6; 3.
Pfam; PF00531; death; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; U19994; AAC48499.1; -. HSSP; P19438; ITNR.
                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TNF-R1) (TNF-RI) (p55).
TNFRSF1A OR TNFR1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N A
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ProDom; PD000771; TNFR c6; 1.

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1 DSV/PQGKYTHFQXRST/CCTK/HFGTYLYNI/YFGFGQETFGFECEGGSFTAGENHLRH/H, 60
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01-MAY-1992 (Rel. 22, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tunor necrosis factor receptor superfamily member 1A precursor (ps6)
TNR-R1) (TNF-R1) (P55).
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Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
SMART; SM00005; DEATH; 1.
SMART; SM02008; TNPP; 3.
PROSITE; PROOSE2; TNPP, NGFR 1; 3.
PROSITE; PS50050; TNFR_NGFR_2; 2.
PROSITE; PS50017; DEATH DOMAIN; 1.
PROSITE; PS50017; DEATH DOMAIN; 1.
SIGNAL 1.
SIGNAL 1.
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                                                                                                                                                                                                                                                                                                                                                                     TWFP-CYS 4.
N-SMASE ACTIVATION DOMAIN (NED).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 1; Length 461;
                                                                                                                                                                        TUMOR NECPOSIS FACTOR PECEPTOR
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Lewis M., Tartaglia L.A., Lee A., Bennett G.L., Rich G.C.,
Wong G H , Chen E.Y., Goeddel D.V.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CP72361EC60C9D43 CRC64;
                                                                                                                                                                                                                            EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                        CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                     SUPERFAMILY MEMBER 1A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 76.1%; Score 716.5; DB 1
77.4%; Pred. No. 5.8e-53;
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BY SIMILARITY.
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TNFR-CYS 2.
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                                                                                                                                                                                                                                                 POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                         DEATH
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REFEAT
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       SO THE FETT 
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specific.";
prod Watl
                                     EMBL; M60468;
                                                                                                     entities requires a license agreement (S or send an email to license@isb-sib.ch).
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"Machentide sequence of the TNF type I receptor from a mouse
endothelioma cell line.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gray P.W., Feldmann M., Foxwell B.M.J.; "Cloning, expression and cross-linking analysis of the murine p55 tumor necrosis factor receptor."; Eur. J. Immunol. 21:1649-1656(1991).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Strausberg
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                                                                                                                                                                                                                                                                                                                                                                                          SUBCELLULAR LOCATION: Type I membrane presimilability: CONTAINS 4 THER-CYS PEPEATS SIMILARITY: CONTAINS 1 DEATH DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SPECIFIC CYSTEINE PROTESSES MEDIATING APOPTOSIS (BY SIMILARITY).
SUBURIT: THE BINDING TO THE EXTRACELLULAR DOMAIN OF THER LEADS TO
HOMOTELMERIZATION, ONCE AGGREGATED THE RECEPTORS DEATH DOMAINS
PROVIDE A NOVEL MOLECULAR INTERFACE THAT INTERACTS SPECIFICALLY
WITH THE DEATH LOMAIN OF TRAND VARIOUS TRADD-INTERACTING
WITH THE DEATH LOMAIN OF TRAND VARIOUS TRADD-INTERACTING
TOMPICE SUCH AS TRAFS, RIF AND POSITION WITH TRAND. THIS COMPLEX
ACTIVATES AT LEAST TWO DISTINCT SIGNALING CASCADES, APOPTOSIS AND
NE KARPA B SIGNALING (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nitted (MAR-2001) to the EMBL/GenBank/DDBJ databases. FUNCTION: Receptor for TNFSF2/TNF-alpha and homotrimeric TNFSF2/Jymphotoxin-alpha. The adaptor molecule FADD recruits caspase-8 to the activated receptor. The resulting death-inducing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       signaling complex (DISC) performs caspase-8 proteolytic activation which initiates the subsequent cascade of caspases (aspartate-
M59377;
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Biol. 11:3020-3026(1991)
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AAA40464.1;
                             AAA39751.1; -.
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ann H., Gentz R.,
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EMBL, L26349; AAAA59361.1; -.
EMBL, M76656; AAA440465.1; -.
EMBL; M88067; AAA40465.1; JOINED.
EMBL; M76655; AAA40465.1; JOINED.
EMBL; BC004599; AAH04599.1; -.
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REFEAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HSSP; P19438; 1EXT.
MGD; MGI:1314884; Tnfrsfla.
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PIR; S16677; S16677.
FIR; S19021; S19021.
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SMART; SM00208; TNFR; 3.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR000488; Death.
InterPro; IPR001368; TNFR_c6
Pfam; PF00020; TNFR_c6; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Receptor; Apoptosis;
161
                                121
                                                                  101
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                                                                                                                                    41
                                                                                                                                                                                                                        Local
                                                                                                                                                                   1 DSVCPOGKYIHPONNSICCTKCHKGTYLYNDCPGPGODTDCRECESGSFTASENHLRHCL
TONTVCNCHAGFFLRESECVPCSHCKKNEECMKLCLP
                                KONTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLP 157
                                                              SCKTCRKEMSQVEISPCQADKDTVCGCKENQFQRYLSETHFQCVDCSPCFNGTVT1FCKE
                                                                                                SCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQE
                                                                                                                                  DSLCFQGKYVHSKNNSICCTKCHKGTYLVSDCFSFGRDTVCRECEKGTFTASQNYLRQCL
                                                                                                                                                                                                      112;
                                                                                                                                                                                                                       Similarity
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                                                                                                                                                                                                                                                                       454 AA;
                                                                                                                                                                                                      Conservative
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179
                                                                                                                                                                                                                     72.3%;
                                                                                                                                                                                                                                                                       50129 MW;
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N-LINKED (GLCNAC...
N-LINKED (GLCNAC...
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Pred. No. 6.2e-50;
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197
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                                                                                                                                                                                                                                                                       CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN (NSD).
                                                                                                                                                                                                                                   Length 454;
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RESULT 4
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ID TR1A_BOVIN

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the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way monflied and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to licenseaish-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                               Signating complex (DIS') performs caspase 8 protectivation which initiates the subsequent cascade of caspases (aspartate-specific cysteine professes) mediating apprecase (by similarity). Subunit: The Binding TO THE EXTRACELULAR DOMAIN OF INFRI LEADS TO HOMOTRIMERIZATION ONCE AGGREGATED THE RECEPTORS DEATH DOMAINS PROVIDE A NOVEL MOLECULAR INTERPACE THAT INTERACTIS SPECIFICALLY PROVIDE A NOVEL MOLECULAR INTERPACE THAT INTERACTING PROCESSUS SUCH AS TRAFS, RIP AND POSSIBLY FADD, ARE RECRUITED TO THRIL CHAPLEX BY THEIR ASSOCIATION WITH TRAND. THIS COMPLEX ACTIVATES AT LEAST TWO DISTINCT SIGNALING CASCADES, APOPTOSIS AND
                                                                                                                                                                                                                                               Los E. F. Kehrli M. E. Jr., Taylor M.J.; "Cloning and sequencing of cDNA encoding bovine tumor necrosis factor
                                                                                                                                                                                                                                                                                                Immunol Immunoparhol 61:179-185(1998).
THOWING Receptor for INFSEZ/TMF alpha and homotrimeric THESE/I/Jymphotoxin alpha The adaptor molecule FADD rectuits caspase 8 to the activated receptor. The resulting death-inducing
              16 OCT 2001 (Rel. 40, Last sequence update)
15 JUN-2002 (Rel. 41, Last annotation update)
Tumor incrosis factor receptor superfamily member 1A precursor (p60)
                                                                                                                                  Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidar; Bovinac; Bos.
                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PSS0017; DEATH DOMĀIN; 1.
Receptor; Apoptosis, Transmembrane, Glycoprotein; Repeat; Signal.
SIGNAL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-SMASE ACTIVATION DOMAIN (NSD)
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SURFELLULAR LOCATION: TYPE I membrane protein.
SIMILARITY: CONTAINS 4 TNPP-CYS REPEATS.
SIMILARITY: CONTAINS 1 DEATH DOMAIN
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TNFR-CYS 3.
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                                                                                                                                                                                                                                 MEDLINE: 98273505; PubMed=9613449;
16-OCT 2001 (Rel. 40, Created)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro, IPR000488; Death
InterPro, IPR001368; TNFR of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; U90937; AAB65143.1; -.
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                                                                 (TNF-RI) (p55).
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                                                                                                  Ros taurus (Bovine)
                                                                                                                                                                                                                                                                                  (TNF) - receptor I.";
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                                                                                TNFRSF1A OR TNFR1
                                                                                                                                                                 NCBI_TaxID-9913;
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REPEAT
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Specific cysteine proteases) mediating apoptosis (By similarity).
SUBUNIT: THE BINDING TO THE EXTRACELLULAR DOMAIN OF THER LEAGES TO HOMOTPHIMERIZATION ONCE AGGREGATED THE RECEPTORS DEATH DOMAINS PROVIDE A MOJECULAR INTERFACE THAT INTERFACE SPECIFICALLY WITH THE DEATH DOMAIN OF TRAND VARIOUS TRAND.INTERACTION PROGRESS SHOWN AS TRARS, PIP AND POSSIBLY FAID, ARE PROGRESS TO
                                                                                                                                                                                                                                                                                                                                      SCSKORREMGOVELSSCTVOPPDTVSSCHRINGKHVMSENLEGGENGSLOLMSTVHLSOGE 120
                                                                                                                                                                                                                                                                                                                                                        Himmler A., Maurer Fogy I., Froenke M., Scheurich P., Pfizenmatet K., Lantz M., Olsson I., Hauptmann R., Stratowa C., Adolf G.R., "Molecular cloning and expression of himan and rat tumor nerrosis factor receptor chain (p60) and its soluble derivative, tumos DNA Cell Biol. 9:705-715(1990).
                                                                                                                                                                                                                                                                                           P12934, 291V30, 091V33, 011V33, 011V33, 011V30-1991 (Pel 19, Created) 011-M76-1991 (Pel 19, Created) 011-M78-1992 (Rel 21, Last sequence update) 15-JUN-2002 (Rel 21, Last annotation update) Tumor necrosis factor receptor superfamily member 1A precursor (pr0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota, Metazoa, Chordata, Craniata, Veitebrata, Eutelmostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Raftus.
                                                                                                                                                                                                                                                                           1 DSVCPQGKYIHPQNNSICHTKHKGTYLYNDHPGPGQDTDHPREESGSFTASBNHLRHUL 60
BY SIMILARITY.
N-LINKED (GLONGC. ...) (POTENTIAL.
N-LINKED (GLONGC. ...) (POTENTIAL.
N-LINKED (GLONGC. ...) (POTENTIAL.)
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Furnya T , Salstrom J L , Rina J , Hashiramoto A , Dobbins D.E.,
Wilder P L, Pemmers B P ;
                                                                                                                                                                                                                 71.7%; Score 674.5; DB 1; Length 471;
                                                                                                                                                                                   5243BF514DFB81C4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A., AND VARIANTS VAL 230 AND PRO 295.
                                                                                                                                                                                                                              96-49;
                                                                                                                                                                                                                                                                                                                                                                                                   121 KONTVCTCHAGFFLRENECVSCSNCKKSLECTKLC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                 161 RODIICHCHMSPPLKBARCISCHPCKNK-FCEKIC 194
                                                                                                                                                                                                                                                17; Mismatches
                                                                                                                                                                                                                                   Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIJINE=91090841; PubMed=1702293;
                                                                                                                                                                                 51367 MW,
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TNFRSFIA OR TNFR-1.
                                                                                                                                                                                                                                 71.68;
                                                                                                                                                                                                                                              Matches 111; Conservative
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                                                                                                                                                                                                                                Local Similarity
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EMPER, 336555; LLCF.
HSCP, F1932, LHCF.
HSCP, F1932, LHCF.
InterPro, IPRO00488; Death.
InterPro, IPRO01368; TNFR C6.
Pfam; PF00020; TNFP C6; 4.

Pfam; PF00531; death; 1.

PL000m; PD000771; TNFR C6; 1.

PMAPT; RM00000; DEATH; 1

PMAPT; RM00000; DEATH; 3

TNFP; 3
                                               Matches
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PROSITE: PS00650; TNEK_NGEK_2; 3.
PROSITE: PS00017; DBATH_DOMAIN; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an enail to licensewisb-sib.ch).
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                                                                                                                                                     DECEMBER
                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                               CAPECHYD
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SIMILARITY: CONTAINS 4 TREPFORS REPEATS.
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                                               al Similarity C8.3
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AAKS35C3.1;
AAKS35C7.1;
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69.3%; Pr
ative 18,
                                                                                                                                                     BOWLE MW,
                                                                                                                                                               BY SIMILARITY.

BY SIMILARITY.
                                            Score 669; DB 1;
Pred. No. 5.2e 49;
8, Mismatches 30
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TUMBE NECKOSIS FACTOR RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-SMASE ACTIVATION DOMAIN (NSD)
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                                                                                                                                                     F344/NHSD AND BN/SSNHSD)
                                                                                              Length 461;
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"Characterization of SOB, a member of the TMFR family.";
Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
-:- SUBCELLULAK LUCATION: Type II membrane protein (Pote-
-:- TISSUE SPECIFICITY: Ubiquitous.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TR23 MOUSE STANDARD; PRT; 176 AA.

(9) PRS; (98 MHCO;

15 JUN-2002 (Rel. 41, Created)

15 JUN-2002 (Rel. 41, Last sequence update)

15 JUN-2002 (Pel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                         HSSP; P19438; 1EXT.
MSD; MSI:1930269; Tnfrsf23.
InterPro; IPR001368; TNFR_C6.
      DISULFID
                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00020; TNFR_c6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entities requires a license agreement (See http://www.isb-sib.ch/announce/
or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-20519229; FubMod-11063728;
Engemann S., Stroedicke M., Paulsen M., Franck U.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa, Chordata, Craniata, Vertebrata, I
Mammalia; Euthoria; Rodentia; Sciurognathi, Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tumor necrosis factor receptor superfamily member 23 (Tumor necrosis factor receptor p60 homolog 1) (TNF receptor family member SOB).

TNFESF23 CR TNFESF1AL1 OR TNFPH1.
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                                                                                                                        REPEAT
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                                                                                                                                                                                                                                                                        TRANSMEM
                                                                                                                                                                                                                                                                                                       DOMAIN
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                                                                                                                                                                                                                                                                                                                                                            SMART, SMC0208, T
FROSITE, PS50050,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation.
European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIMILARITY: CONTAINS 3 THER-CYS REPEATS
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CAC27352.1; -.
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                                                                                                                                                                                                                                                                                                                                                            TMFR_NGFR_2; 2
                                                                                                                                                                                                                                                                                              Transmembrane, Glycoprotein, Repeat CYTOPLASMIC (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
THER-CYS 1.
THER-CYS 2.
THER-CYS 3.
BY SIMILARITY.
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                                                                                                                                                                                                                                                                  SIGNAL-ANCHOR (TYPE II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                             (POTENTIAL)
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"A death domain-containing receptor that mediates apoptosis.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64 KORKEMSQVEISSOTVDRDTVOGORYNQYPHYWSENLPQGENGSLGLNG TVHLSOQEKQ 122
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        38 CPPGRY - - QSNDVOORTOPSGIFVKAPCKIPHIQGQCERGHPGIFTGRONGLHDCELCS 94
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Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases.
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"Addo J. a new member of the tumor necrosis factor receptor family, contains a death domain and activates apoptosis and NP-kappa-R.",
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TR12 HUMAN STANDARD, PRT, 417 AA.

093018; Q93014; Q91017; Q97011; P78515; Q99831, Q99722; P78507;

093018; Q93014; Q01017; Q14865; O14866; O00275; O00277; O00277; O00278; O00279; C00280; Q91MED; Q9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryola, Merazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Apoptosis inducing receptor AIP) (Apo-3) (Lymphocyte associated receptor of death) (LAPP).
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                                                                                                                                                                                                                                                                                (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                          21.3%; Score 200.5; DB 1; Length 176; 33 6%; Pred No 2.4e-10;
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N-LINKED (GLCNAC ) (POTI
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between the Swiss Institute of Bioinformatics and the EMHL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.ish.shb.ch/anneanord or send an email to license@isb.shb.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBTAIT HOMODIMER INTERACTS STRONGLY VIA THE DEATH DOMAINS WITH THE THEPI-ASSOCIATED MOLECULE TRAND AND THE THRE'S RECEPTOR TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTIVATE AT LEAST TWO DISTINCT SIGNALING CASCADES, AMPTOSIS AND NF-KAPPA B SIGNALING.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bodmer J.-L., Burns K., Schneider P., Hofmann K., Steiner V.,
Thome M., Bornand T., Hahne M., Schröeter M., Wilson A., French L.E.
Erwaning J.L., Macdonald H.P., Tschopp J.,
"TRAMP, a novel apoptosis-mediating receptor with sequence homology
to tumor necrosis factor receptor 1 and Pas(Apo 1/CD95).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -i- TISSUE SPECIFICITY: ABUNDANTLY EXPRESSED IN THYMOCYTES AND LYMBOCYTES. DETECTED IN LYMBOCYTE-RICH TISSUES SUCH AS THYMEN, COLON, INTESTITE, ALLO SPLEEN. ALSO FORD IN THE PROSTATE.
-i- PTM: GLYCOSYLATED (PPOBABLE).
-i- SIMILABITY: CONTAINS 4 TUNE-CYS REPEATS.
-i- SIMILABITY: CONTAINS 1 DEATH POWAIN.
-i- CAUTION: Ref.5 reports for isoform 4 at position 20H a section.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "A new death receptor 3 isoform: expression in human lymphoid orll lines and non-Hodgkin's lymphomas.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=Brain;
Chaudhary P M , Hood L E ;
Chaudhary P M , Hood L E ;
Submitted (JAN-1997) to the EMRL/GenRank/PDBJ databases.
-!- FUNCTION: Receptor (for TNFSF12/APOJL/TWEAR. Interacts directly with the adaptor TPADD. Mediates activation of NF kappaR and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                induces apoptosis. May play a role in regulating lymphosyte.
                                                                                                                                                                                              "LARD: a new lymphoid-specific death domain containing receptor regulated by alternative pre-mRNA splicing.";
Proc. Natl. Acad. Sci. U.S.A. 94:4615-4619(1997).
                          [5] SEQUENCE FPOM N.A. (ISOFOPMS 1, 2, 3, 4; 5; 6; 7; 8; 9 AND 10) MEDLINE=9272273; Pubmed=9114039; Screaton G.P., Xu X.-N., Olsen A.L., Cowper A.E., Tan F., McMichael A.J., Bell J.I.; 200 A.B., A.B., A.B., Rell J.I.; 200 A.B., 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and 11); Secreted (isoforms 3, 4, 5, 6, 7, 8, 10 and 12)
                                                                                                                                                                                                                                                                                                                                                                                                                       Warzocha F., Pibeiro P., Charlot C., Renard N., Coiffier B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shiozawa S., Konishi Y., Murayama K., Mukae N., Yamamoto E. Hayashi S., Sato M., Shiozawa K., Tsukamoro Y., Submitted (NOV-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Picchem. Biophys. Fes. Commun. 242:376:379(1998).
                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. (ISOFORMS 11 AND 1D)
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Curr. Biol. 6:1669-1676(1996).
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TISSUE=Brain, and Fetal lung;
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EMBL, Y09342, CAA70559.1, ...
EMBL, Y09742, CAA70560 1, ...
EMBL, H72763, AACCORT.
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U94501;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB41435.
AAB40918.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAC51193.1; -.
AAB41432.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB41433.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAC51192
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           TNFRSF12
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THER-CYS
                                                                                                                                                                                                                                                                                                                                                         ISOFORM 9)
                                                                                                                                                           MISSING (IN ISOFORM 7).
MISSING (IN ISOFORM 6).
MISSING (IN ISOFORM -> PPRSLAGAPWGAVQSAVP
LSVAGGPVGV (IN ISOFORM 11).
                              ISOFORM 3).
MISCING (IN ISOFORM 3)
                                                                                                                         LSVAGGRVAV (IN ISOFORM 11).
STLGSCPERCAAVCGWRQMFWVQVLLAGLVVPLLLGA ->
                                                                                                                                                                                                                                                                                                                              SERDTDCGTCLPGFYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TUMOR NECROSIS FACTOR RECEPTOR SUPERFAMILY MEMBER 12.
STLGSCPERCAAVCGWPQMFWVQVIIIAGLVVPLLLGATLTY
                                                                                                  VLGPGAPGWPCGPPPAWGHPDLHIPPLLASQAPGYCP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOPLASMIC (POTENTIAL)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (POTENTIAL)
                                                                                                                                                                                                                                                                                                                       8).
HPSVTLGQRPHPSSTS
                                                                                                                                                                                                                                                                                                                                                                                                                      ) (POTENTIAL).
) (POTENTIAL)
, ISOFORM 7 ANI
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X MEDLINE=21085660, PubMed=11217881;

X MEDLINE=21085660, PubMed=11217881;

Rawai J., Shinagawa A., Shibata Y., Yoshino M., Itoh M., Ishii Y.,

A Arakawa T., Hara A., Shibata Y., Korno H., Adachi J., Fukuda S.,

A Alzawa K., Izawa M., Nishi Y., Korno H., Kasukawa T., Saito R.,

A Alzawa K., Izawa M., Nishi Y., Kiyesawa H., Prondo S., Yamanaka I.,

A Alzawa K., Izawa M., Nishi Y., Kiyesawa H., Prondo S., Yamanaka I.,

A Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

A Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

A Kubeli P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

A Fleischmann W., Gassterland T., Gissi C., King B., Kochiwa H.,

A Kubeli P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

A Striml L. M., Stabli F., Suruki R., Tumita M., Wagner L., Washi. T.,

A Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

A Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

A Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

A Sakai K., Okido T., Furuno M., Aono H., Madarelli R., Barsh G.,

A Sakai K., Okido T., Fletcher C., Fujita M., Gariboldi M.,

A Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N. H.,

A Gustincich S., Hill D., Hofmann M., Mazzarelli J., Mombaerts P.,

A Gustincich S., Fing B., Pingwald M., Rodriguez I., Sakamoto N.,

Sasaki H., Sato Y., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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Best Local
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15-FVE. 09CEA4, 08VHB9;
15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOUSE
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VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. STRAIN=C57BL/6J; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Risser P., Mao W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Sequence and functional comparison in the Beckwith-Wiedemann region: implications for a novel imprinting centre and extended imprinting."; Hum. Mcl. Genet. 9:2691-2766 (2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=129/Sv. TISSUB-Embryonic stem cells;
MEDLINE=005:3029, Putmed 11053728,
Engemann S. Stroedicke M., Paulsen M., Franck O.,
Lane N., Reik W., Walter J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Characterization of Submitted (JUL-2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EKONTVCTCHAGFFLRENECVSC----SNCKKSLECTKLC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SQVALENCSAVADTRCGCKPGWFVEC---QVSQCVSSSPFYCQPCLDCGALHRHTRLLCS 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HKKIGLFCCRGCPAGHYLKAPCTEPCGNSTCLVCPQDTFLAWENHHNSECARCQACDEQA 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GOVEISSCTVDRDTVCGCRKNOYRHYWSENLEOC----FNCSLCLN-GTVH----LSCQ 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ia; Eutheria, Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      48;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Baldwin D.T., Pan G.; of SOBa, a murine member of 1) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   F. C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 200.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYRHCWPHKFLVTADEAGMEALTPPFATHLSPLDSAHTLLA
PPDSSEKICTVQLV -> PPPSLAGAPWGAVQSAVPLSVAG
GKVGJVLGMRVGELGWTEGKKVKKGATTQHPFAAFSVLGPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEMVQVLLAGLVVPLLLLGATLTYTYRHCWPHKPLVTADEAG
MEALTPPPATHLS -> SkwCAGNARGETGMLEGEAGEEGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MISSING (IN ISOFORM 12)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APGWPCGPPPAWGHPDLHIPPLLASQAPGYCR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2B 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the TNFR family.";
databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Reinhardt R.,
              Storch K.-F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21,
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Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
Wynshaw Boris A., Yoshida K., Hasegawa Y., Fawaji H., Kohtsuki S.,
                                                                                                                                                                                                                                                                                                                                                                                                                    Rocoptor; Signal anchor; Trānsmembrane; Glycoprotein; Pepeat
DOMAIN 1 20 CYTOPLASMIC (POTENTIAL).
TRANSMEM 21 41 SIGNAL-ANCHOR (TYPE II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            49 CPASEY---WSKDVCCKNCSAGTFVKAPORIPHTQSQCEKCHPGTFTEKDNYLDAGILCS 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64 KORKEMGOVEISSCTVOPPOTVOGOPKNOYPHYWSENLFQGFNGSLGLNG-TVHLSCQEKQ 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  :05 TCDED--ÒEMVADCSATSDPFCOCPTGLY-YYDPFPPESCPPCTYCPOGIPVLQECNSTA 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 CPQGKY1HPQNNSICCTKCHKGTYLVNDCPGPGQDTDCPECESGSFTASENHLRHCLSCS 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         L -> V (IN REF. 3).
RRSASVAWPI -> NPRNRLFLLL (IN REF. 2)
                             Hayashizaki Y.;
"Functional annotation of a full-length mouse cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (POTENTIAL) (POTENTIAL).
                                                                 IR #037855 950 (2001)
IR #037855 950 (2001)
IR $08RCELLULAR LOCATION: Type II membrane protein (Potential).
TISSUE SPECIFICITY: Ubiquitous.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21.1%; Score 198.5; DB 1; Length 180;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRESERIGSADDS1FA CRC64,
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N-LINKED (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Pred. No. 3.6e-10; 18; Mismatches 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            435 AA.
                                                                                                    !- SIMILARITY: CONTAINS & TNFP-CYS PEPEATS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TNFR-CYS 1.
TNFR-CYS 2.
TNFR-CYS 3.
                                                                                                                                                                                                                                                                                                                                                                         SMART, SMOODOR, TNEF, 3
PROSITE, PSOO652, TNER NGFR 1, FALSE NEG.
PPOSITE, PSSOOSO, TNEP NGFR 2, 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL)
                                                                                                                                                                                                                                                      EMBL, AJ278265; CAC16406 1; --
EMBL, AA276505, CAC2753.1; --
EMBL, AY046551; AAL05073.1; --
EMBL, AK012838; BAB28502.1; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20226 MW;
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                                                                                                                                                                                                                                                                                                                            MGD, MGI:1930270; Infrsf22.
InterPro; IPR001368; INFR_c6.
Pfam; PF00020; INFR_c6; 3.
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the BWH, but starton the Buropean Bloinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.ich.ork/Hopernor) or send an email to licenseasisb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=20261554; PubMed-10799510;
MedliNE=20261554; PubMed-10799510;
Proney I.A., Burrovich K.D., Glass A.A., Berboroglu S., Brunchict C.A.,
Whitbock J.C., Cohen G.H., Elsenberg R.J., Ware C.F.;
"The lymphotoxin-beta receptor is necessary and sufficient for
"IGHT-mediated apoptosis of tumor cells.";
J. Biol. Chem. 275:14307-14315.(200)
--- FUNCTION: Benefity for the herefortimeric lymphotoxin containing
01-JUN-1994 (Rel. 29, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor receptor superfamily member 3 precursos
(Lymphotoxin-beta receptor) (Tumor necrosis factor receptor 2 related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-99223511; PubMed-10207006;
Wu M.Y., Wang P.-Y., Han S.-H., Hsieh S.-L.,
"The cytoplasmic domain of the lymphoroxin beta receptor moduatos col.
death in Hela cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LTA and LTB, and for TNFS14/LIGHT. Promotes apoptosis via TPAF3 and TRAF5. May play a role in the development of lymphoid organs:-:- SUBUNIT: Self-associates.
                                                                                                                                                                                                                                                                                      Baens M., Chaffanet M., Cassiman J.J., den Berghe H., Marynen P., "Construction and evaluation of a hacDNA library of human 12p transcribed sequences derived from a somatic cell hybrid."; Genomics 16:314-228(1993).
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Pfam; PF00020; TNFP_c6; 4
Probom, PD000771; TNFR_c6; 1.
SMART; SM00208; TNFP_4
PPOSITE; PS00562; TNFP_NGFP_1; 2.
PPOSITE; PS50050; TNPP_NGFP_2; 3.
SRECEPLOr; Apoptosis; Transmembrane; Glycoprotein; Repeat; Stundi...
SIGNAL.
SIGNAL.
                                                                                                                                             Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Butoloustomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidao, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-94225209; PubMed-8171323; Crowe P.D., van Arsdale T.L., Walter B.N., Ware C.F., Hession C. Ehrenfels B., Browning J.L., Din W.S., Goodwin R.G., Smith C.A., "A lymphotoxin-beta-specific receptor."; Science 264:707-710(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                      Strausberg R.;
Submitted (APR-2002) to the EMBL/GenBank/DDRJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- SUBCELLULAR LOCATION, Type I membrane protein.
-!- SIMILARITY: CONTAINS 4 TNFR:CYS REPEATS.
                                                                                 protein) (Tumor necrosîs factor C receptor).
LTBP OP TNFPSF3 OP TNFCP
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                                                                                                                                                                                                                                                                       MEDLINE=93252381; PubMed=8486360;
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EMBL; BC026262; AAH26262.1;
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                                                                                                                              Homo sapiens (Human)
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Best bocal a
Matches 49
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51.AUG-1988 (Rel. 08, Created)
01.AUG-1988 (Rel. 08, Last sequence update)
16.-001-2001 (Rel. 40, Last annotation update)
16.-001-2001 (Rel. 40, Last annotation update)
Tumbr nesses factor receptor superfamily member 16 precursor (Low-
affinity nesses growth factor receptor) (NGF receptor) (Gp80-LNGFR)
affinity nesses affinity neurotrophin receptor p75NTR).
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                                                                       SEQUENCE IF 1:II FROM N.A.

MEDILINE-899-8-99; PubMed-22854481;

Medyal A. Paill N. Char M.

"A constitutive promon-1 directs expression of the nerve growth factor

"A constitutive promon-1 directs expression of the nerve growth factor

"A constitutive promon-1 directs of the nerve growth factor

Mol. Cell Billo 3107(1988)

-1- FURCION: Low affinity receptor which can bind to NGF, BDNF, NT-3,

2017 The Cells of mediate cell survival as well as cell death of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DECURENCE FROM N A MEDILIDARY FOLTAIS, FURMEDIANS OF TANABAN A., Buck C.P. Tohnson D., Tanaban A., Buck C.P. Bothwell M., Chao M., Expression and structure of the Cell 47:545-554 (1986).
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    Metaboa, Cherdata, Craniata, Vertebrata, Euteleostomi,
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an A., Buck C.P.,
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Fred. No. 6.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      human NGF receptor.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sehgal A., Morgan C., Mercer E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          427 AA
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ffam, PFC0020; TNFR c6; 4.
Ffam, PF00531; death; 1.
SMART; SMC0005; DEATH; 1.
SMART; SMC0008; TNFR; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; M21621; AAA36
PIF; A25218; GQHUN
HSSP; P07174; INGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; M14764; AAB59544.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license gisener (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             associated cell death executor.
-! SUBCELLULAR LOCATION: Type I membrane protein.
-!- PTM: N- AND O-glycosylated.
-!- PTM: Phosphorylated on serine residues.
-!- SIMILARITY: CONTAINS 4 THER-CYS REPEATS.
-!- SIMILARITY: CONTAINS 1 DEATH DOMAIN.
                                                                                                                                                                                                                              DISULFID
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PROSITE; PS50050; THER_NGER_2; 4.
PROSITE; PS50017; DEATH_DOMAIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Receptor; Apoptosis; Neurogenesis; Transmembrane; Glycopiotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Genew,
121 KONTVC-TCHAGFFLRE----NECVSCSNC----KKSLECTK 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR001368; TNFR_c6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nterPro; iPk000488; Death
                                     87 TEC---VĞIQSMSAFÖVEADDAVĞIĞ---AYGYYÇGETTGRÜEAĞRVÜEAĞSGLVESÜÇG
                                                                   63
                                                                                                                                                            Local
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                                                                SKCRKEMGQVEISS-CTVDRDTVCGCRKNQYRHYWSENLFQCENCSLCLNGT VHLSCQE 120
                                                                                                                     CEGGEKTIHEGINSICCTECHEGTYLYNDCEGEGGOTOCREC ESGSETASENHLEHCUSC 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               62010,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HCNC 7804; NGFR
                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Phosphorylation;
                                                                                                                                               Conservative
                                                                                                                                                                                                                                         67
86
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                                                                                          -SGECCHACNIGEGVADHO-GAND-TVČEHČIDŠVTÉSDVVSATEHČKHČ 86
                                                                                                                                                                                                    45183
                                                                                                                                                           19.4%; Score 182.5; Db 1
32.1%; Fred. No. 1.6e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Signal.
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(A
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                                                                                                                                                                                                                                                                                                                                                                                                                TNFR-CYS 1.
TNFR-CYS 2.
TNFR-CYS 3.
TNFR-CYS 4.
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BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TUMOR NECHOSIS FACTOR RECEPTOR SUPERFAMILY MEMBER 16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL.
CYTCPLASMIC (FOTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                   B09FA143FB3D625B CRC64;
                                                                                                                                              Mismatches
                                                                                                                                                                       DH 1;
                                                                                                                                                                       Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FUNCTION: Low affinity receptor which can bind to NGF, BDNF, NT 3, AND NT-4. Can mediate cell survival as well as cell death of neutal cells (By similarity). Binds to rabies virus glycoprotein
                                                                                                                                                                          15.4UN-2002 (Rel. 41, Created)
15.4UN-2002 (Rel. 41, Last sequence update)
15.4UN-2002 (Rel. 41, Last annotation update)
15.4UN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor receptor superfamily member 16 precursor (Low-affinity nerve growth factor receptor) (NGF receptor) (Low affinity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tuffereau C. Renejean J. Blondel D. Kieffer B., Flamand A., "Low affinity nerve-growth factor receptor (P75NTR) can serve as a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        associated cell death executor (By similarity).
SURCELLUIAR LOCATION: Type I membrane protein (By similarity).
PTM: N- AND O-glycosylated (By similarity)
PTM: Phosphorylated on serine residues (By similarity).
SIMILAPITY: ONNTAINS 4 THPP-TYS PEPEATS.
SIMILAPITY: CONTAINS 1 DEATH POMAIN.
                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUBUNIT: Homodimer; disulfide-linked. Interacts with p75NTR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Receptor; Apoptosis; Neurogenesis; Transmembrane; Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THMOR NECPOSIS FACTOR RECEPTOR SUPERFAMILY MEMBER 16.
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141 KONTVCEBCPPGTYSDEANHVDPCLPCTVCEDTERQLRECTR 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            or send an email to licensewish-sib ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE, PSCOOFS, TNFR NGFR 1, 1.
PROSITE, PSSCOOFO, TNFP NGFR 2, 4
PROSITE, PSSCOO17, DEATH DOMAIN, 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-99077793; PubMed=9857182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AF105292; AAD17943 1; -
HSSP; P07174; INGR.
                                                                                                                                                                                                                                                                                                                  neurotrophin receptor p75NTR)
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InterPro; IPR000488, Death.
InterPro; IPR001368, TNFR_56.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        receptor for rabies virus.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17:7250-7259(1998).
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Pfam, PP00020; TNFR c6; 4.
SMART; SM00005; DEATH; 1.
SMART; SM00008; TNFP; 3.
                                                                                                                                STANDAPD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     57
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                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse)
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                                                                                                                                                                                                                                                                                                                                              NGFR OR TNFRSF16
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SIGNAL
                                                                                                                                TRI6 MOUSE
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                                                                                                       MOUSE
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TRIB MOUSE STANDARD; PRT; 474 AA.
P25119; PSP893;
01-MAY-1992 (Rel. 22, Created)
01-MAY-1992 (Rel. 22, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor receptor superfamily member 1H precursed ("Tumor necrosis factor receptor 2) (TNF-R2) (P75).
                                                                                                                                                                                                                                                                                                                                                             63 SKCPKEMGQVEISS-CTVPPPTTVCGPKNGYEHYWSENIFQCFNCSLCINGT VHISCQE 120
                                                                                                                                                                                                                                                                                                                                                                                            80 TEG++-LGLQSMSAPCVEADDAVCPC++-SYGYYQDRFTGRCEAGSVGGVGSGLVPSCQD 133
                                                                                                                                                                                                                                                               Selps
                                                                                                                                                                                                                                                                                            4 CPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGGUTDGREG-ESGSFTASENHLAHCLSC 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kissonerghis M., Fellowes R., Feldmann M., Chernajovsky Y., Submitted (MAY-1995) to the EMBL/GenBank/DDRJ databases.
                                                                                                                                                                                                                                                                                                             25 CSTGMYTH---SGECCKACNLGBGVAPF-GANG TVCEPCLDSVTFFDVVSATERVEPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Goodwin R.G., Anderson D., Jerzy R., Davis T., Brannan C.I., Copeland N.G., Jenkins N.A., Smith C.A., "Molecular clonning and expression of the type 1 and type 2 murine receptors for tumor necrosis factor."; McI. Cell. Riol. 11.3020-3026(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Podentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                              -LINKED (GLCNAC. . .) (POTENTIAL).
SP7A4510DB8AF9B2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lewis M., Tartaglia L.A., Lee A., Bennett G.L., Rice G.C.,
Wong G.H., Chen E.Y., Goeddel D.V.,
"Cloning and expression of CDNAs for two distinct muring tumon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 necrosis factor receptors demonstrate one receptor is specials specific.";
                                                                                                                                                                                                                            19.3%; Score 181.5; DB 1; Length 417; 31.5%; Pred. No. 1.9e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Jacob C.O., Liu J.;
Submitted (JAN-1996) to the BMRL/GenRank/DDRJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                             -NECVSCSNCPPSLECTFLCLP 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                              134 KONTVCEECPEGTYSDEANHVDPCLPCTVCHDTEROLRECTP 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nat1 Acad. Sci U S A AA:2A10-2834(1991).
                                                                                                                                                                               N-LINKED (GLCNAC.
            BY SINILARITY
                                                                                                                                                                                                                                                               25, Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE=91187885; PubMed=1849278;
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44686 MW;
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                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                          Local Similarity
ses 51, Conserv
                                                                                                                                                                                             417 AA;
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ThterPro; IPPONIAGE; TNER c
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                                                                                                                                                                                                                                                                                                                                      DISULFID
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Probom, Pb0000'11, TNF8_06;
SMART, SM00208; TNFR; 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  approximately 5-fold lower affinity for homotrimeric THREFL(), photoxin alpha (By Similarity). SUBCELLULAR ICCATION TYPE I membrane protein. SUBLIARITY: CONTAINS 4 THER-CYS REPEATS.
                                                                          RAPNOMVICKACAPGIF--SDITSSIDVCRPHRICSILAIP 193
                                                                                               CEREMINIVO-TOHAGEFLEENEOVSCSNOKESLECTKLOLP 157
                                                                                                                                         SECREEM QUEISSOTVERETVOSORKNOY----PHYWSENLEGGENCSLOLING-TVHLS
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                                                                                                                                                                               TETTSKETHETANSITOTECHKSTYLYNDOFGEGGOTDGREGESGSFTASENHLRHGLSG- 62
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X87129;
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M59378;
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195
474 MA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAA60618.1; -.
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AAA85021.1; -.
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                      STANDARD,
 25, Created)
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Pred No 2 3e-08,
0; Mismatches 76
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THER-CYS 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         EXTRACELLULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TUMOR NECROSIS FACTOR RECEPTOR
                                                                                                                                                                                                                                                   462EAE398C4D6563 CRC64;
                      933
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL)
                                                                                                                                                                                                         76;
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MBL outstation -
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-i- FUNCTION: BINDS TO THE-ALPHA AND BETA PROBABLY RESVENTS THE REACH CELLULAR TARGET AND THEREBY DEAMPENING THE POTENTIAL
                                                                                                                                                                                                                                                                                                                             REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-precit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
SEQUENCE
                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE, PS900652; TNFR_NGFR_1; 2
PROSITE, PS90050; TNFR_NGFR_2; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR001368; TNE
Pfam; PF00020; TNFR_c6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; A23729; CAA01688.1, PIR, A40566, GQVZML.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIINE=91335768; PubMed=1651597;
Upton C., Macen J.L., Schreiber M., McFadden G.;
"Myxoma virus expresses a secreted protein with homology to the tumor
necrosis factor receptor gene family that contributes to vital
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-APR-1993 (Rel. 25,
15-JCH-2C02 (Rel. 41,
Tumor necrosis factor
MOOCI OR TZ.
                     CARBOHYD
                                                             CARBOHYD
                                                                              CARBUHYD
                                                                                                      DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cr send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=31530;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Viruses, dsDNA viruses, no RMA stage; Foxviridae, Chordopoxvirinae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Myxoma virus (strain Lausanne)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Leporipoxvirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ANTIVIRAL EFFECTS OF THE CYTOKINE. SIMILARITY: CONTAINS 4 THEF-CYS FEFEATS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             M95181, AAA46632.1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           F00020, TNER; 70008; TNER; 70008; TNER; 70008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          $M00208;
                                                                                                                                                                                                                                                                                                                                                                                                                            Glycoprotein;
326 AA;
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084478
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63
105
148
18
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NFR; 3.
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Last annotation update)
soluble receptor precursor
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  MW.
              THER-CYS 1.
THER-CYS 2.
THER-CYS 3.
THER-CYS 4.
INFR-CYS 4.
BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                      TUMOR NECROSIS FACTOR SOLUBLE RECEPTOR
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  ABBF027E947292FF
                                                                                                                                                                                                                                                                                                                                                                                                                          Signal.
CRC64,
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Query Match Rest Local Similarity

19.18;

Score 179.5; DB 1 Pred. No. 2.3e-08;

DB 1;

Length 326

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-87321103; PubMed=2820128; Upron C., Delange A.M., McFadden G., "Tumorigenic poxviruses: genomic organization and DNA sequence of the "Tumorigenic region of the Shope fibroma virus genome "; Virology 160:20-30(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-91207415; PubMed=1850261;
Smith C A , Davis T , Wignall J M., Din W S , Farrah T., Upton C.,
McPaddon G , Goodwin P G ;
"T2 open reading frame from the Shope fibroma virus encodes a soluble
                                                                                                                                                          92 ESGSCHKTRPPVCPCSAGNYCLLKGGEGCPICAPFTKCPAGYGVSGHTRTGDVLCTKCP 150
                                                                                                                                                                                                  93 PHYWSPNI.FQCFNCSLCLNG-TVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLEC 151
                                                                                                                                                                                                                                          151 RYTYSDAVSSTETCTSSFNYISVEFNLYPVNDTSCTTTAG----PNEVVKTSEFSVTLNH 206
  67, Indels 49; Gaps
                                        13 ONNSICCTKCHKGTYLYNDOPGPGODTDCPECESGSFTASENHLPHCLSG-SKCPKEMGQ 71
                                                                              34 EKDGLCGTSCPPGSYASPLC-GPGSDTVCSPCKNETFTASTNHAPACVSCRGRCTGHLS- 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 iochem. Biophys Res Commun. 176-335-342(1991)
FENCTION: BINDS TO TNE-ALPHA AND RETA. PPORABLY PREVENTS TNE TO
FEACH CELLULAR TAPGET AND THEREBY DEAMPENING THE POTENTIAL
ANTIVIPAL EPPERTS OF THE CYTOKINE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TUMOR NECFOSIS FACTOR SOLURLE PECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Viruses; dsDNA viruses, no RNA stage; Poxviridae; Chordopoxvirinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tumor necrosis factor soluble receptor precursor (Protein T2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAY-1992 (Rel. 22, Created)
01-MAY-1992 (Rel. 22, Last Sequence update)
15 JUN-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .i. SIMILARITY: CONTAINS 4 TNFR-CYS REPEATS.
19, Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shope fibroma virus (strain Kasza) (SFV),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE; PSOOKES; THEP NGPR 1, 2
PROSITE; PSSOOSO; THER NGFR 2; 1.
Receptor; Glyroprofein; Pepeat; Signal.
SIGNAL
                                                                                                                      VETSGCTVDPPTVCGCPKNOY-----
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ProDom; PD000771; TNFR c6; 1.
SMART; SM0020R; TNFR; 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                form of the TNF receptor.";
  51; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
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                                                                                                                                                                                                                                                                                  152 TKLCLP 157
                                                                                                                                                                                                                                                                                                                      207 TP CPP 211
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72 VEISSCTVDRDTVCGCRKNOYRHYWSENLFGCPNCSLCLNGTVHLSCGEFONTVCTCHAG 141
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Bartling B., Hoffmann J., Holtz J., Schulz R., Heusch G., Darmer D.,
"Expression of apoptosis-associated genes in hibernating and stunned
"Expression of and stunned".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30° (3908)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13 ONNSIGCTKCHKGTYLYNDCPGPGPGJetDCFFCESGSFTASENHUFHCLS( SKCKKEMGC 7)
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15-JUL-1999 (Rel. 34, Last Requence update)
15-JUL-2002 (Rel. 41, Last annotation update)
Tumor necrosis factor receptor superfamily member 6 precursor (FACT, receptor) (Apoptosis-mediating surface antigen FAS) (Apo-1 antiques)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       both (By similarity).
--- SUGGELUIAR LOCATION: Type I membrane protein.
--- DOMAIN: CONTAINS A DEATH DOMAIN INVOLVED IN THE BINDING OF FAUD,
AND MAYBE TO OTHER CYTOSOLIC AFAITOR PROTEINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleestemi,
Mammalia, Eutheria, Cetartiodactyla, Suina, Suidae, Sus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                34 EKNGLCCASCHPGFYASPLC-GPGSNTVCSPCBDGTFTASTNHAPACVSCRGPCTGHL3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GLCNAC. . .) (POTENTIAL) (GLCNAC. . .) (POTENTIAL)
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Submitted (JAN-1999) to the EMPL//GenBank/DDBJ databases.
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325 AA;
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Search completed January 6, 2003, 03.58.18 Job time: 23 secs
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Matches 37
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InterPro; IPR001188; TNER C6.
Ptam; PE00531; death; 1.
SMAPT; SM0005, TNER; 3.
SMART; SM00008; TNER; 3.
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PROSITE: PSS0050; THEP NOFE 2: 2.
PROSITE: PSS0010; DEATH_BOMAIN; 1
PROSITE: PSS0010; DEATH_BOMAIN; 1
RECEPLAY: April 1: 1: Transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        between the Swiss Institute of Bioinformatics and the EMBL outstation - the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an exail to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EM91; AJOD1202; CAA04596.1;
HSSP; P25445; IDDF.
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                                                                                     157 PTSNTKC 163
                                                                                                                              120 EKQNTVC 126
                                                                                                                                                                       100 FFORVOCTÉRIO EVERNÓTETONTROFORDIFFOI TEQUERONPOTTÓEHÓVIE-NOT 156
                                                                                                                                                                                                                  43 ESECREGAL---REGARCO POR PARKHADO ES PASARO O POSECIED Y TO MUHISSIO 99
                                                                                                                                                                                                                                                                                 : CSVCEQUALING CARSICOTECHED THINKS TO PEOPOSICOTO PECESG SETASENHLEHC 59
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32 SUPERFAMILY MEMBER 6.
                                                                                                                                                                                                                                                                                                                                            %; Score 176.5; DB 1; %; Pred. No. 4.1e-08; 18; Mismatches 65;
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BY SIM
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TNFR-CYS 2.
TNFR-CYS 3.
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POTENTIAL.
CYTOPLASMIC (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                     Length 332;
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GenCore version 5 1.3
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protein search, using sw model ow pretein

January 6, 2003, 03:47:44; Search time 28 Seconds (without alignments) 1184 771 Million cell updates/sec Run on:

US - 09 - 882 - 735 - 2

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Sequence:

BLOSUM62 Gapop 10 0 , Gapext 0 5 Scoring table:

671580 Total number of hits satisfying chosen parameters.

671580 seqs, 206047115 residues

Searched:

seq length: 0 seq length: 200000000 Minimum DB Maximum DB

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Maximum Match 100% Listing first 45 summaries

Database :

SPTREMBL 21:*

1: sp_archea:*

2: sp_bacteria:*

3: sp_fungi:*

4: sp_human:*

5: sp_invertebrate:*

6: sp_mammal:* unclassified: * sp_vertebrate:* sp_rvirus:* sp_bacteriap:* sp_organelle:* sp_phage:* sp archeap: * rodent · * sp_plant:* sp_virus:* 10:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		عن				
Result		Ouery				
CN	Score	Match	Match Length DB	DB	ID	Description
	780	82.9	446	ي خ	095ND3	O95nd3 felis silve
2	756	80.3	189	9	097510	097530 canis famil
~	731	77.7	189	9	095185	095185 felis silve
4	202	21.5	413	11	Q99MM1	O99mml musculu
ů.	193	20.5	387	13	Q9PVD4	Ogpvd4 xenopus lae
¥	191	20.3	413	::	Q912M6	091zm6 rattus norv
7	188	20.0	302	1.3	0911180	OgpusO salvelinus
Œ	182.5	19.4	285	13	09DGH7	
6	179.5	19 1	157	13	Qope;4	Ogdf34 brachydanio
10	176.5	18.8	320	1.2	057079	
11	176		459	11	962327	Q62327 mus musculu
13	175.5	18.7	312	13	Q9DGH8	Q9dqh8 qallus qall
1.3	175.5	18.7	322	+ 4	072761	072761 cowpox viru
1.4	171.5	18.2	316	-1	C6065	057092 ectromelia
15	171.5	18.2	320	12	057091	O57091 ectromelia
91	171.5	18.2	320	12	057300	057300 ectromelia

OBB734 mits misseralia	DITTO NO INOC 921230	0.57119 myles VIII	O57121 COMPON VIIII	067100 monkeypas v	Oc. 7122 - company with	O57115 COMPREX VITE	the Kindfowstor population	OSZIII variola vii	Darkely wanted at	C89098 variola vii	Carried Comments of the Comments	Oralle compose viru	Community with anyone	OSTING Variola VII	is and head thought to be a second	A Androgical BULLEU	a modernique acception	var in la	Q95407 varieda via	OS7110 variola vii	O89118 variola vii	OFFICE COMPACT PIER	is a thorpies would no		0.5210.2 menkeryp x v		BILLY KINDS OF BULLEY	DETLE COMPON VITA
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171.5	169	168	168	167.5	167	167	166.5	166.5	166.5	166.5	166.5	166	165	165	164.5	164.5	164.5	164	164	164	164	164	162.5	162.5	62.	62	162	9
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ALIGNMENTS

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SEQUENCE FROM N.A. Missing R., Masuda K., Ohno K., Tsujimoto H.; Mizuno T., Goto Y., Baba K., Masuda K., Ohno K., Tsujimoto H.; "Molecular cloning of feline tumor necrosis factor receptor type I (TNFR I) and expression of TNFR I and TNFR II in various discussed in
                                                                                                                                                                                                                                                                                                                                                           Felis silvestris catus (Cat).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia, Eutheria, Carnivora, Fissipedia, Felidae, Felis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (NOV-2000) to the EMBL/GenBank/DDBJ databases.

REMBL, AB051103; BAB55455.1; -
RINTERPO; IPR000345; CytC_heme, bind.

RINTERPO; IPR000345; CytC_heme, bind.

RINTERPO; IPR000561; EGF-like.

RINTERPO; IPR001561; EGF-like.

RINTERPOS EGF-like.

RINTE
                                                                                                                                                        01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
                                                                                446 AA
                                                                                PRT;
                                                                                                                                                                                                                                                                                   Tumor necrosis factor type I.
                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=9685;
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                                                                                                                               095ND3;
                                                                                Q95ND3
RESULT 1
                                              095ND3
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.. C c: 82.9%; Score 780; DH 6; Dength 446; 84.1%; Fred. No. 1.5e-78; tive 10; Mismatches 15; Indeks Best Local Similarity 84.19 Matches 132; Conservative

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RESULT
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Best Local
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SEQUENCE
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                                                           01-FEB-1997 (TrEMBLrel. 02, Created)
01-JUN-1998 (TrEMBLrel. 06, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
                         TNFR-1
                                        Tumour necrosis factor receptor p60 (Fragment)
                                                                                                                         095185;
                                                                                                                                                295185
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PROSITE; PS00652; TNFR NGFR 1; 3.

PROSITE; FST 5: TNFF NGFR 2; 2.
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Mammalia, Futheria, Carnivora, Fissipedia, Canidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Receptor.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro; IPR000561; EGF-like.
InterPro; IPR001368; TNFR_c6.
Pfam; PF00020; TNFR_c6; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bennett D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Cloning of canine IL-1ra, TNFR and TIMP-2.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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87.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21324 MW;
        (Cat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 756; DB o,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9; Mismatches
                                                                                                                                            PPT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5D3AD6A5676BFE99 CRC64;
                                                                                                                                                189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gault E.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 6; Length 189;
                                                                                                                                                ζ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    တ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>ښ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
        8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (999MM1 (KELLILL)
(999MM1;
(299MM1;
(2001 (TrEMBLrel. 17, Created)
(1-JUN-2001 (TrEMBLrel. 17, Last sequence update)
(1-JUN-2002 (TrEMBLrel. 21, Last annotation update)
WSL-1-like protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; U72344; AAB95089.1; -.
HSSP; P19438; 1EXT.
InterPro; IPR000561; EGF-like.
InterPro; IPR001368; TNFR c6.
Pfam; PF00020; TNFR c6; 3.
SMAAT; SM00208; TNFR; 3.
PROSITE; PS01186; EGF 2; UNKNOWN 1.
PROSITE; PS00652; TNFR NGFR 1; 3.
PROSITE; PS50050; TNFR NGFR 2; 3.
                   Pfam; PF00531; death; 1.
Pfam; PF00020; TNFR c6; 3.
SMART; SM00005; DEATH; 1.
SMART; SM00208; TNFR; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Receptor.
PROSITE; PS50017; DEATH_DOMAIN; 1.
                                                                                             InterPro; IPR000488; Death.
InterPro; IPR000561; EGF-11ke.
InterPro; IPR001368; TNFR_C6.
                                                                                                                                                                                   EMBL; AF329969; AAF
HSSP; P25942; 1CDF
                                                                                                                                                                                                                                                                                                                           MEDLINE=21158384; PubMed=11261933;
Wang E.C.Y., Kitson J., Thern A.,
                                                                                                                                                                                                                                                                                                                                                                        STRAIN-129/SV
                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                 MGD; MGI:1934667; Tnfrsf12.
                                                                                                                                                                                                                                                                 homologue for the WSL-1 (DR3, Apo3,
                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   partial cds."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Duthie S., Nasir L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                     "Genomic structure,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Felis catus tumour necrosis factor
                                                                                                                                                                                                                           [mmunogenetics 53:59-63(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TVCTCHAGFFLRENECVSCSNCKKS 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCFNCSLCLNGTVHLSCQEKQN 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TVCTCHAGFFLRGNECVSCVNCKKN 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KCFKEMYQVEISFCTVYRDTVCGCRKNQYRYYWSETHFQCLNCSLCLNGTVQISCKETQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       h 77.7%;
Similarity 85.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   189 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      189
                                                                                                                                                                                                        AAK11256.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Chordata;
; Rodentia;
                                                                                                                                                                                                                                                             expression, and chromosome mapping of the mouse SL-1 (DR3, Apo3, TRAMP, LARD, TR3, TNFRSF12)
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae, Mus
                                                                                                                                                                                                                                                                                                                           Williamson J., Farrow S.N.,
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Submitted (JAN-1998) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
44 CPQGKYIHPQDNSICCTKCHKGTYLYNDCEGPGLDTDCRECENGTFTASENYLRQCLSCS 103
                                     CPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGQDTDCRECESGSFTASENHLRHCLSCS 63
                                                                                                                                                                                                                  189
21420 MW; F3FBE0CE809D7DBE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eckersall P.D.;
                                                                                                      8; Mismatches
                                                                                                                                   Score 731; DB 6; Length 189; Pred. No. 1.8e-73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  receptor p60
                                                                                                         Indels
                                                                                                      0
                                                                                                      Gaps
                                                                                                      0;
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10,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hick F., Sun B.T., Collins-Parie L., LaVallie E., Sive H.L.; "Identification and Characterization of fullback, a Novel Posteriorly-
                                                                                                                                                                                                                                           54 (CRGCPKGHYMKAPCAEPGGNSTCLPCPSDTFLTPNNHFKTDCTPCQVCDEEALQVTLEN 113
                                                                                                                                                                                                                                                                                 77 CTVDRDTVCGCRKNQYRHYWSPNLFQCFNCSLCLNG-TVHLSC-----QEKQNTVCT 127
                                                                                                                                                                                                                                                                                                                       114 CSAKSDTHAGAGSG----W-----GVDGSTVPPGGKSSPPSGVPPGSATTPVHEAPTPRP 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60 LISCSKOPKEMGQVEISSCTVDPDTVÇGÇPYNQYRHYWSENI,PQCPNGSLCLNG-TVHLSÇ 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              77 UPCETCUS PSITLE - SNCTPROUTVOP OPEROY LD - SNGI - - CLPCOLGSKGHGVVSQC 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    71, Indels 18, Gaps
                                                                                                                                                                28; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 DSVCPQGKYTHPQNNSIGGTKCHKGTVLYNDGPGPGQPTDGPEG-ESGSFTASENHLPHG-59
                                                                                                                                                                                                        18 CCTKCHKGTVLYNDCPGPGQDTDCPEGESGSFTASENHLP-HCLSCSKCPKEMGQVEISS 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22 EDVCESOLY - - TNSGROOSLOPAGPGVVVPO - SDSDTROEPCIENSTESDVPSAKAKO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01 MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MIN 2001 (TrEMBLrel. 17, Last annotation update)
P75 like transmembrane protein fullback.
Announa laevis (African clawed frog).
Eukriyota; Metasoa; Chordata, Craniata, Vertebrata, Euteleostomi, Amphibia; Ratrachia, Annra, Mesobatrachia, Pipoidea, Pipidae,
                                                                                                                     21.5%; Score 202; DB 11; Length 413; 31.4%; Pred No 2 30-14,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 387,
                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Expressed Xenopus Gene ";
Submitted (FEB-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AF131890, AADS4072 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        119 GEKÜNTVC-TCHASFFLR----ENECVSC-SNCKKSLECTKLCLPQ 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            132 THNKNTVČQLČSSGFYSEVKSSESPČLPČPTEČKETEVQIGDČVPQ 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    387 AA; 42066 MW; 1A386A239C7C8A82 CRC64;
                                                                                69F21B85D0DABABF CRC64,
                                                                                                                                                             58,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20.5%, Score 133, DB 13, 31 9%; Pred No. 2 20-13,
                                                                                                                                        dest Local Similarity 31.4%; Pred No. 2.3e-3
Matches 48; Conservative 19; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24, Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            387 AA
                                                                                                                                                                                                                                                                                                                                                                 128 CHAGFFLRENECVSC----SNCKKSLECTKLC 155
                                                                                                                                                                                                                                                                                                                                                                                                       163 CLPGFYIRGNDCTSCPTGFSSVCPKA--CTAVC 193
PROSITE; PS01186; EGF 2; UNKNOWN 1.
PROSITE; PS00652; TNFF NGFP 1; UNKNOWN 1
PROSITE; PS50050; TNFR NGFR 2; 1.
SEQUENCE 413 AA: 44450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS50017; DEATH DOMAIN; 1.
PROSITE; PS00652; TNFR NGFR 1, UNKHOWN 3.
PROSITE; PS50050; TNFP NGFR 2; 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HSSP, P07174, INGR.
InterPro, IPR001083; Copper-fist
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR001368; TNFR_C6.
Pfam; PF00531; death; 1.
Pfam; PF00020; TNFR_C6; 4.
SMAPT; SM00412; Cu; FFST; 1.
SMART; SM00005; DEĀTH; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR000488; Death.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    53; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SM00208; TNFR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   West Local Cimilarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUBI TaxID-8355;
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                                                                                                                        Ouery Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09PVD4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09PVD4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SMART
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q9PVD4
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STRAIN=SPRAGUE-DAWLEY,
OSDURG B., Peiser C., Doemling D., Schomburg L., Voigt K., Blockel H.,
"TNF-receptors p60 and p80 are constitutively expressed by rat brain capillary endothelial cells and participate in TNF-alpha transport
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 63 SKORKEMSOVEISSTTVOROTVOOTEKHYN PHYWERIUFLOFMULLING 11HL TO 11H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   79 SSCSED - GVETHNOTARGNRVOACHARSY ALEUROSHOP JOMENIKO HOLOVAROPI 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDINE:20111091; FubMed-10642582;
Bobe J., Goetz F.W.
"A tumor necrosis factor decoy receptor homologue is up regulated in
the brook troot (Salvelinus fentinalis) awary at the completion of
                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleosteen;
Mammalia, Eutheria, Podentia, Sciurognathi, Muridae, Murinae, Ruttus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           edre,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26. ŐQISQEYYPEZZÖMÉGAZGEGÉGZÁKHEG-NKISÚTVGADGAGMETÖVWNHLHFCLSGS 78.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Salvalinus fontinalis (Brook trout) (Brook char).
Eukaryota, Metazoa; Chordata, Craniata, Vertebrata, Eutelrostom;
Erdrimpreryjai, Neopteryji; Telrostei, Eutelcostei;
Frotacanthopteryji; Salmoniformes, Calmonidae; Salvelinus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 CPQGKYIHPQNNSICTFK/HKGTYLYNDCFGFGGGGFTFCRECESGSFTASHNHAPH/LAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20.3%, Score 191, DB 11, Length 433, 32.7%; Pred. No. 4e-13; tive 18, Mismatches 79, Indels 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        through the blood-brain barrier.";
Submitted (SEP-2001) to the EMPL/GenRank/DDRJ databages.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            433 AA; 45723 MW; 75736D835E72CA4A CRC64;
                                                                                                                                                             01-PEC-2001 (TFEMBLrel. 19, Last sequence update) 01 MAR 2002 (TFEMBLrel. 20, Last annotation update) Tumor necrosis factor receptor type II (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAY-2000 (TrEMBLrel 13, Last sequence update) 01 JUN-2002 (TrEMBLrel. 21, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120 EKQNTVÇT-ÇHAĞPFLRENECVŞCSNÇKKSLECTKLCLP 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              137 SNGNVICSACAPGTF -- SDTTSSTDVCRPHRICSILAIP 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 32.7%, Pred. No. 4e-13
Matches 52, Conservative 18, Mismatches
                                                                 433 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          302 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Interpro; IPR001368; TNFR_66.
Pfam; PF00020; TNFR_65; 4.
PPOSITE, PS00652; TNFR_MGFR_7; ITMMYOWH_2.
PROSITE; PS50050; TNFR_MGFR_2; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAY-2000 (TrEMBLrel. 13, Created)
                                                                                                                                   01-DEC-2001 (TrEMBLrel. 19, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
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HSSP, 014763; 1D4V.
InterPro; IPR000561; EGF like.
InterPro; IPR001368; TNFR.c6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AF420214; AAL16021.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                           Rattus nervegicus (Rat).
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                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=10116;
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                                                                                               Q912M6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09PUS0;
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                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 36; Conserv
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPRovids; TNFR_C6.
Piam; PF00531; death; 1.
Fiam; PF00531; death; 1.
Fiam; SM00005; DEATH; 1.
SMART; SM00005; DEATH; 1.
SMART; SM00005; TNFR_C6.
PROSITE; PS00017; DEATH DOMAIN; 1.
PF00SITE; PS00672; TMFR_NGFR_1, JNFMOWN_1
PROSITE; PS00672, TMFR_NGFR_1, JNFMOWN_1
PROSITE; PS00672, TMFR_NGFR_1, J. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 20, Last sequence update)
01-MAK-2002 (TrEMBLrel. 20, Last annotation update)
Fas ligand receptor soluble form (Fragment).
Callus gallus (Chicken)
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata,
                                                                                                                                                                                                                                                                                                                                                                                                   NON TEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Fas Expression and Regulation in Hen Granulosa Cells.";
Submitted (AUG-2000) to the EMBL/GenBank/DDBJ databases.
EMEL; AF29F875; AAG30224% i;
HSSP; 014763; 1D4V.
                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Archosauria, Aves, Neognathae, Galliformes, Phasianidae, Phasianinae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9DGH7;
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LHCdeO
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SMART; PRODOZO; TNER; 4.
PROSITE; PROVIES; EGF 2; UNKNOWN 1.
PROSITE; PROVIES; TNER NGER 1; UNKNOWN 1.
PROSITE; PREMARA; TNEP_NAPP_2; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR000488; Death
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CTSTENAECSCAKNHYCN--SSRCEHCESCTVCENGQIEKECTSTSDTVC 111
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIVCDECEPGIYLEAPCSAM-EKSDCABCPNGAYTEFWNHISKCLECSMCAE--NQVVKQ 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TaxID=9031;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MICH PROSPECTOR CHECKING
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                                                      TO VERSITY SORKA OVERHYWSENS FESTEN SECENSTVHUS ODERONTVO
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                                                                                                                                                                                                                                                                                                                                                                      285 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         302 AA; 34037 MW; E44C73477F05C3DF CRC64;
                                                                                                                                                                                                                                            Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ., Johnson A.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20.0%, Score 188, EB i3, 31.5%; Pred No 6 le-13; ative 21; Mismatches 53;
                                                                                                                                                                                                                                                                                                                                                                   32431 MW;
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                                                                                                                                                                                                                                            19.4%; Score 182.5, DB 13, 32.7%; Pred. No. 2.4e-12; tive 15; Mismatches 54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YYENEKYEACIFHEECEFGYGANTTGTFH-----QDTECVQ 140
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                                                                                                                                                                                                                                                                                                                                                                      A9761960CCD79E6D CRC64;
                                                                                                                                                                                                                                      Mismatches
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19
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       057079;
C1-JUN-1998 (TrEMBLrel. 06, Created)
01-JUN-1998 (TrEMBLrel. 06, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Tumor necrosis factor receptor II homolog (V211).
                                                                                                                                                             STRAIN=BRIGHTON; PubMed=9520445; MEDLINE=98188282; PubMed=9520445; Loparev V.N., Parsons J.M., Knight J.C., Panus J.F., Buller R.M.L., Pickup D.J., Esposito J.J.; "A third distinct tumor necrosis factor receptor of Proc. Natl. Acad. Sci. U.S.A. 95:3786-3791(1998).
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Q9DF34, U1-MAK-2001 (TrEMBLrel 16,
01-MAR-2001 (TrEMBLrel 16,
01-JUN-2002 (TrEMBLrel 21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Orthopoxvirus.
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Pfam; PF00020; TNFR c6; 3.
SMART; SM00005; DEATH; 1.
SMART; SM00208; TNFR; 3.
MEDLINE=83117629; PubMed=6961398
                                           STRAIN=BRIGHTON RED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Viruses, dsDNA viruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cowpox virus (CPV).
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PROSITE; PS00652; TNFR_NGFR_1; UNKNOWN_2.
PROSITE; PS50050; TNFR_NGFR_2; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              receptor in transgenic zebrafish.";
Nat. Cell Biol. 0:0-0(2000).
EMBL; AF302789; AAG21396.1; -.
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Autinopterygii; Neopterygii; Teleostei, Ostariopnysi;
                                                                                   SEQUENCE FROM N
                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10243;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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InterPro; IPR001368; TNFR_c6.
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28.8%; Fred. No. 6.3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Cowpox virus contains two copies of an early gene encoding a soluble secreted form of the type II TNF receptor.";
Virology 204:343-356(1994).
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                                                                                                                                                                                                                                                                                                                                      MEDLINE-91196263; PubMed=2014645; Hu F.Q., Pickup D.J.; "Transcription of the terminal loop region of vaccinia virus DNA is initiated from the telomere sequences directing DNA resolution.";
Pickup D.J., Bastia D., Stone H O , Joklik W K ;
"Sequence of terminal regions of cowpox virus DNA: arrangement of
repeated and unique sequence elements ";
Proc Hitl And Sci E S A 79.7112 7116(1982).
                                                                                                                                                         MEDLINE-90177240; PubMed=2309451;
Parsons B.L., Pickup D.J.;
"Transcription of orthopoxvirus telomeres at late times during
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01 NOV-1996 (TrEMBLiel. 01, Last sequence update)
01-JUN 2002 (TrEMBLiel. 21, Last annotation update)
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Pfam; PF00070; TNFR_c6; 2.
SMART; SMO0708; TNFR; 1; 2.
PROSITE; PS0050; TNFR_NFR_1; 2.
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Hu F.Q., Smith C.A., Pickup D.J.;
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STRAIN-BRIGHTON RED;
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Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Archosauria, Aves, Neognathae, Galliformes, Phasianidae, Phasianinae,
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                       Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Eutele stemo;
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                         Powell B.E., Wicker L.S., Peterson L.B., Todd J.A., "Amino acid variation in the tumor Necrosis factor receptor 2 18
linked to autoimmune diabetes in NOD mice.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 CPQGKYIHPQNNSICCTKCHKGTYLYNDCPGPGPGDTHOTECESGSFTASENHLRHF1L.)
                                                                                                                                                                                                                                                                                                                                                                           Powell E.E., Wicker L.S., Peterson L.R., Todd J.A.; "Allelic variation of the type 2 tumor necrosis factor receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18.7%; Score 176; DB 11; Length 459; 31.1%; Pred. No. 2e-11; tive 20; Mismatches 77; Indels 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N A Bridgham J.T., Johnson A.L.; "Fas Expression and Regulation in Hen Granulesa Cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 48686 MW; 6C51D2CF1C4626DF CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Last sequence update)
Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               140 RAPNGNVLCKACAPGTF -- SDTTSSTDVCRPHRICSILAIP 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31.1%, Freu. ....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            312 AA
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                                                                                                                                                                                                                                                                                                                                                         MEDLINE=95178848; PubMed=7873884;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS00652; TNFR NGFR 1; 2. PROSITE; PS50050; TNFR NGFR 2; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mamm. Genome 5:726-727(1994).
EMBL; X76401; CAA53981.1; -.
HSSP; P19438; INCF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MGD, MGI.1314883, Infrsflb.
InterPro; IPR001368; INFR_c6.
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01-MAR-2001 (TrEMBLrel. 16, '01-MAR-2001 (TrEMBLrel. 16, '01-MAR-2001 (TREMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF00020; TNFR c6; 4.
SMART: SMC0208; TNFR; 4.
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Mus musculus (Mouse)
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                                                                                                                          SEQUENCE FROM N.A.
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Best
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PLAW, PR00000; TNEF.,6; 2
SMART; SM00208; TNEP MGFR 1; TNEMBWH_7.
PR005TE; PR00050; TNEP MGFR_1; TNEMBWH_7.
PR005TE; PR00050; TNEP MGFR_2; 2
SEQUENCE 300 AA, 35410 MW, 7745491/80156A90 CKC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDITINE—98729467, FulMeda)568042, Solmenii A.V., Peticv N.A., Shillelkumov S.H., Safronov F.F., Tolmenii A.V., Peticv N.A., Shillelkuma O.I., Gutrovov V.V., Kotwal G.J.; "Species opecific differences in genome organization of cowpox, "NIP'A., 164 varyinia vituess", "NIP'A., 164 varyin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-AUG-1998 (TrEMBLrel.
01-AUG-1998 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
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Fiam; PFRR531; INFK_C6; 2.

SMART; SMUPPUS; DEATH; 1.

SMART; SMOD238; INFK; 2.
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InterPro; IPR001368; F
Ffan; PF00531; death;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cowpox virus
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TE, PS00660, TEEP NORE 1, TERMOWN
LE, PS50050; TEER NORE 2: 4.
                                                                                                              CONTRACTOR OF THE CANADAL DESERVED ON THE SECOND OF THE SE
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                                        - REMEDVSOUSPORTSULE LIST
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tive 14, Mismatches
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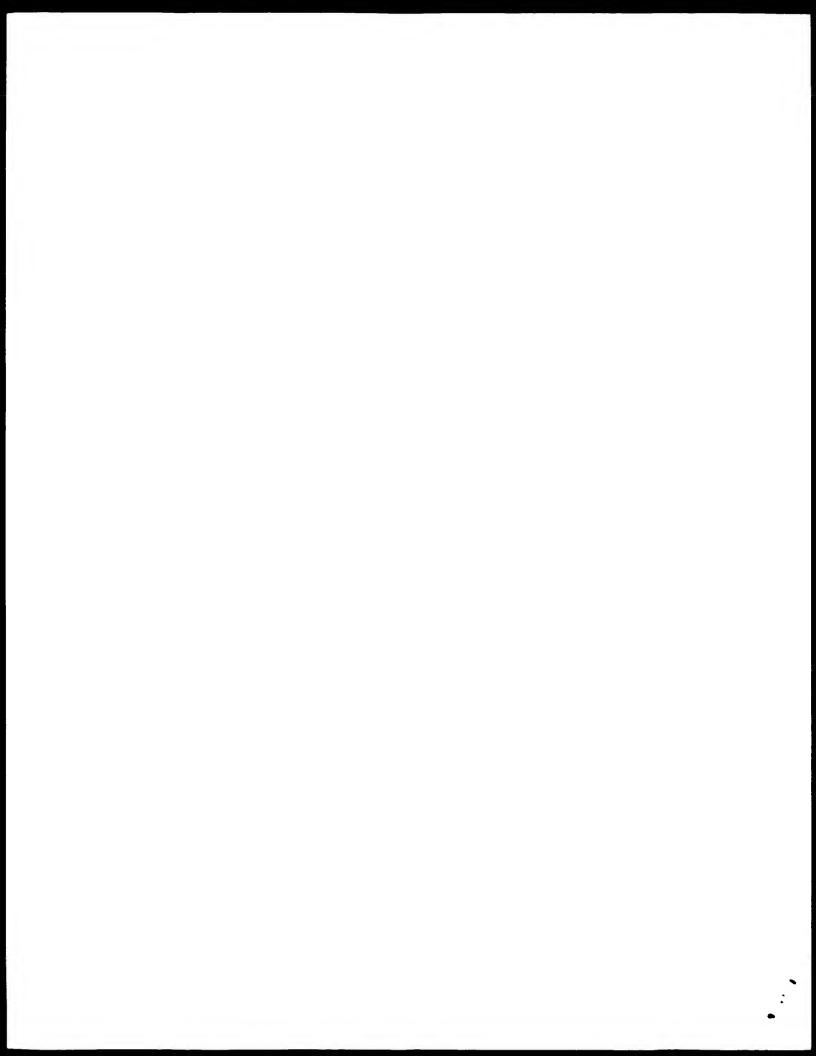
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STRAIN=MUNICH-MP3;
MEDLINE-98188282; PubMed-9520445,
MEDLINE-98188282; PubMed-9520445,
Loparev V.N., Parsons J.M., Knight J.C., Panus J.F., Pay C.A.
Buller K.M.L., Pickup D.J., Espasito J.C.,
"A third distinct tumor necrosis factor receptor of orthopoxy
Proc. Hatl, Acad. Sci. U.S.A. 95.3786-3791(1998).
EMBL; U87578; AAB94348.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JUN-1998 (TrEMBLrel. 06, Created)
01-JUN-1998 (TrEMBLrel. 06, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last amortation update)
                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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PROSITE; PS00652; TNFR_NGFR_1; 2.
PROSITE; FS50050; TNFR_NGFR_2; 2.
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"A third distinct tumor necrosis factor receptor of orthopoxviruses.";
Proc. Natl. Acad. Sci. U.S.A. 95:3786-3791(1998).
EMBL; U87580; AAB94350.1; -.
HSSF; F19438, 1EXT.
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MEDLINE-98188282; PubMed=9520445;
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01-JUN-1998 (TrEMBLrel. 06, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
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                                                                                                                                                                                                                                                                                                               Orthopoxvirus
                                                                                                                                                                                                                                                                                                                                             Viruses; dsDNA viruses,
                                                                                                                                                                                                                                                                                                                                                                             Ectromelia virus
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Pfam; PF00020; TNFR_c6; 2.
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| DR | HSSP, P19438; 1EXT. | | |
| DR | InterProj. IPR00158; TNFR_c6. |
| DR | InterProj. TNFR_c6; 2. |
| DR | PR081TE; PF00020; TNFR_c6; 2. |
| DR | PR081TE; PS00652; TNFR_NGFR_1; 2. |
| NR | PR081TE; PS00652; TNFR_NGFR_1; 2. |
| NR | PR081TE; PS00652; TNFR_NGFR_1; 2. |
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| NO | SEQUENCE | 32.0 A3. | 35.134 MW; CB0AEB0AIF53FSA5 CRC64; |
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Search completed: January 6, 2003, 03:59:06 Job time : 38 secs



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GenCore version 5.1.3
Copyright (c) 1993 - 2003 Compugen Ltd.
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OM protein - nucleic search, using frame_plus_p2n model

January 6, 2003, 04:98:12; Search time 2808 Seconds (without alignments) 1668.644 Million cell updates/sec Run on:

US-09-882 735 2 941 Title: Perfect score:

CSNCKKSLECTKLCLPQIEN 161 1 DSVCPQGKYIHPQNNSICCT Sequence:

Scoring table:

Xgapop 10 0, Xgapext (Ygapop 10.0, Ygapext (Fgapop 6.0, Fgapext Pelop 6.0, Delext BLOSUM62

2054640 segs, 14551402878 residues Searched: Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Mavimum DR seq length: 2որորոր

Post processing: Minimum Match O% Maximum Match 100% Listing first 45 summaries

Command line parameters:

MODEL-frame+ p2n.model -DEV=xlh

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O-fcqn2 1/DSPTO, spool/USCAGR82735/runat 03012003 074145 17187/app query.fasta_1.327

DB-GenEmbl -OFMT=fastap -SUFFIX=rge -MĪNMATCH=0.1 -LOOPCL=0 -LOOPEXT=0

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USER=USCOGRA2735 @CSN 1 1 1616 arunat 03012003 -DV 1455 17197 -NCPU=6 -ICPU=3

NO XLPXY -NO MMÄP -LARGEQUBRY -NEG SCORES-0 -WALT -LONGLOG -BV TIMEOUT-120

WARN TIMEOUT-30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0,5 -FGAPOP=6 -FGAPEXT=7

Database :

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                                                                                                                                          Asn 161
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                                                                                                                                                                                                                                         AAACASAACACCGTGTGCACCTGCCATGCAGGTTTCTTTCTAAGAGAAAACGAGTGTGTC
                                                                                                                                                                                                                                                         LysGlnAsnThrValCysThrCysHisAlaGlyPhePhoLeuArgGluAsnGluCysVal
                                                                                                                                                                                                                                                                                                                                  PheGlnCysPheAsnCysSerLeuCysLeuAsnGlyThrValHisLeuSerCysGlnGlu 120
                                                                                                                                                                                                                                                                                                                                                                 CGGGACACCGTGTGTGGCTGCAGGAAGCAGTACCGGCATTATTGGAGTGAAAACCTT
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Hauptmann, P., Himmler, A., Maurer-Fegy, I. and StraTNF-receptor, TNF-binding protein and DNA coding Fitent. EP 333438 A 49 24-9CT-1990,
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Synthetic DNA for TNF:binding polypoptide from patent EP0393438.
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1 (bases 1 to 1301) Campbell, R.K., Jameson, B.A. and Chappel, S.C.
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                                                                                                                 Sequence 7 from patent US 6193972 AR131310
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Bendele, A.M., Sennello, R.M. and Edwards III, C.K.
Combination therapy using a TNF binding protein
TNF-mediated diseases
Patent: US 6306820-A 1 23-OCT-2001;
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                                                                                                                                                        Conservative.
Mismatches:
Hybrid heterodimeric protein hormone
Patent: US 6193972-A 7 27-FBB-2001;
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H.sapiens mRNA for TNF-binding polypeptide from patent EP0393448
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Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
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/db_xref="taxon:9606"
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US-09-882-735-2 (1-161) x A29098 (1-1368)

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1 (bases 1 to 1368)

Hauptmann, R., Himmler, A., Maurer-Fogy, I. and Stratowa, C.
TNF-receptor, TNF-binding protein and DNA coding therefor
patent, Ep 393438-A 48 24-CCT-1930,
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                                                                                                                                                                                                                                                                   Draft entry and computer-readable sequence for Sci. U.S.A. (1990) In press] kindly submitted by P.W.Gray, 13-AUG-1990.
                                                                                                                                                                                                                                                                                                                                                                   Gray, P.W., Barrett, K., Chantry, D., Turner, M. and Feldmann, M. Cloning of human tumor necrosis factor (TNF) receptor cDNA and expression of recombinant soluble TNF-binding protein Proc. Natl. Acad. Sci. U.S.A. 87 (19), 7380-7384 (1990)
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Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
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/codon_start=1
/product="TNF receptor"
/protein_id="AAA36756.1"
/db_xref="GI:339760"
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                                                                                                                           /gene="TNF receptor"
                                                                                                                                                /tissue_type="placenta"
1. .2050
                                                                                                                                                                                    /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                location/Qualifiers
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PQGKYTHPQNNSTCTKCHKGTYLYNDCPGPGGGTDCPECESGSFTASFNHLPHCLSC
SKCPKFMGQVETSSCTVDRDTVCGCRKNQYPHYWSENLFQCFNCSLCLNGTVHLSCQE
KQNTVCTCHAGFFLFENEVSCSNCKKSLECTKLCLPQTENVKGTEDSGTTVLLPLVT
                                                                 FFGLCLLSLLFIGLMYRYQRWKSKLYSIVGGKSTPEKBGELEGTTTKPLAPNPSFSPT
PGFTPTLGFSPYPGSSTFTSSSTYTPGFORPRAPARBVAPRDAPABDILATALASDPI
PNPLQWWEDSAHKPGSLDTDDPATLYAVUROVPPIRWKEPVRRLGLSHEIDBLELQN
GRCLPRAQYSMIATWPPRTPPFATLELLGPVI.PNMNILGGCLEDIEEALCAPPLEPARS
/translation="MGLSTVPDLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVC
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275. .1513
                                                                                                                                                                                                    'gene="TNF receptor"
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/trānslation="MGLSTVPDLJLPLVLLELLVGLYPSGV1GLVPHGRPRPDGV"
PQGKYIHPQNNSICCTKCHKGTYLYNNGPGFGGUTDGKB TEALATTGFRHLRBTTASC
SKCRREMGQVEISSCTVDRPTVGGGPRUQYRHYWGBNLFQCTNGGTATMGTFULLSCOB
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POPTPTLGSEVPOSSTFYTPGENOFUNEARPPERANTYVYGANITE HATALIANDEN 
PUPLOGWEDGAIRFOSCLOTORPATLYAVVENUPPERWEYPELGISHHEIDE HATALIAN 
OPCLPEAQYSMLATWPPPTPPPEATLELLAPVILPPMELLACY FULBEALCHAVA
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Mismatches:
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Matches:
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                                                                                                                         /protein_id="CAA01558.1"
/db_xref="G1:579600"
                                  /organism="Homo sapiens"
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                                                                                      .55. .1522
/gene="TNF alpha qene"
                                                                        /gene="TNF alpha gene"
                                               /db_xref="taxon:9606"
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Feldmann, M., Gray, P. W., Turner, M.J. C. and Brennan, F. TNF. alpha. receptor-derived binding protein Fatent. US 5633145-A 24 2) MAY-1397,
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 2087)
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KQNTVCTCHAGFFLRENGCVSCSNCKKSLECTKYSENCKKTEDSGTTTVLLFLYI
PFGLCLLSLLFIGLMYRYGXWKSKLYSIVCGKSTPEKEGELEGTTTKPLAPNBSESPT
PGFTPTLGFSPVPSSTFTSSSTYTPGDCPNPAAPRREVAPPYQGADPILATALASDPI
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                                                                                                                                                                                                          AKO56611 2109 bp mRNA linear PRI 01-AUG-2002 Homo sapiens cDNA FLJ32049 fis, clone NTONG2001220, highly similar to TUMOR NECROSIS FACTOR RECEPTOR 1 PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genomics Laboratory; 1532-3 Yana, Kisarazu, Chiba 292-0812, Japan Re Malle Agenomicsekhi.cojp, Pel:81-438-52-3975, Bax:81-438-52-3986) NEDO human cDNA sequencing project supported by Ministry of Economy, Trade and Industry of Japan, cDNA full insert sequencing: Research Association for Blotechnology (RAB); cDNA library construction- Helix Research Institute (HPI) (supported by Japan Key Technology Center etc.); 5'- & 3' end one pass sequencing: RAB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HRI, and Biotechnology Center, National Institute of Technology and Evaluation; clone selection for full insert sequencing: RAB and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          , Abe, K.,
                                                                                                                                                                                                                                                                                                                                                                                                                 Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ninomiya,K, Waqatsuma,M, Kanda,K, Kondo,H, Yokoi,T.,
Kodaira,H., Furuya,T., Takahashi,M, Kikkawa,E, Cmura,Y, Abe,K
Kamihara,K., Katsuta,N., Sato,K., Tanikawa,M., Yamazaki,M.,
Sugiyama,T., Trie,R., Orsuki,T., Saro,H., Wakamatsu,A., Ishii,S.,
Yamamoto,J., Isono,Y., Kawai-Hio,Y., Saito,K., Nishikawa,T.,
Kimura,K., Yamashita,H., Matsuo,K., Nakamura,Y., Sekine,M.,
Kimura,K., Wansahita,H., Matsuo,K., Takahashi-Fujii,A.,
Oshima,A., Sugiyama,A., Kamahori,K., Takahashi-Fujii,A.,
Nagahari,K., Masuho,Y., Nagai,R., and Isogai,T., Sugano,S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (24-OCT-2001) Takao Isogai, Helix Research Institute,
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Homo Rapiens Fongue cDNA to mENA, clone_lib:NTONG2
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/clone lib="nynows"
/note="cloning vector: pME18SFL3"
632 c 586 g 457 t
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Mismatches.
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/translation="WGLSTVPDIALPLVALELLVG1PPS3VIGLVHHAGEREEH3VV-
PQGRYIHPQNNSICCTKCHKGTYLYNDCPCPGCPCPCPECFSGSFTASENHLRHG1SC
SKCRPEMGYPRISSCTVPPPTTVGCPRNOYPHYWSPNLFOCHWS1C1NGTVH SCUB
PQNYCTCHAGEPELPETPSGSTYVCCDPPCPTFLCTPLCTPDIBLWCTTHESSTTVLLHSVUB
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GRCLREAQYSMIATWRRRTPRREATLELLGRVLRDMDLLGATLEST BEALATISPALATA
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1 Phases 1 to 2111)
Brockhaus M., Dembic, Z., Gentz, R., Lesslauer, W., Loetscher, H. and Schlaeger, E.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDNA for (55kD TNP-BP) tumor necrosis factor binding protein from patent EP0417563.
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                                                                                                                                                                                                                                                                                                                                                       121 LysGlnAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGlu(YsVa) 146
41 CysArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCystasi + 0
                                                                81 ArgAspThrValCysGlyCysArgLysAsnGlrTyrArgHisTyrTrpSerGluAsnLen
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Patent: EP 0417563-A 24 20 MAR-1991;
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/db_xref="G1:904969"
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/product="55 kD_TNF-BP"
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                                                                                                                                                                           Gene expression profiles in liver cancer Putent: NO 9229103-A 2300 11-AFE-2002;
                                                                                                                                                                                                                                        Homo sapiens
Būkaryjta, Metaria, Chirdata, Graniata, Vertebrata, Euteleustomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
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                                                                                                            /organism="Homo sapiens"
/db xref="taxon.9606"
/notee="EMBL/GenBank Accession No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysCysHisLysGlyThrTyrLeuTyrAsnAspCysProGlyProGlyGlnAspThrAsp 40
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Luctscher, H., Fan, Y.C., Lahr, H.W., Gentu, F., Brockhaus, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                     2158862
                                                                                                                                                                                                                                                                                                                                                       Tabuchi,H. and Lesslauer,W. Molecular cloning and expression of the human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tumor necrosis factor receptor. Human cell line HL60, cDNA to mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens tumor necrosis factor receptor mRNA, complete cds. M58286 M33480
                                                                                                                                                                                                                                                                                                                    Cell 61 (2), 351-359 (1990)
                                                                                                                                                                                                                                                                                                                                     factor receptor
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187. .1554
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                                                                                             /note="55 kDa"
                                                                                                             /gene="TNF receptor"
                                                                                                                                                                                         /cell
                                                                                                                                                                                                                          /organism="Homo sapiens"
                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                         _xref="taxon:9606"
                                                                                                                                                                                         line="HL60"
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PGFTPTLGFSPVPSSTFTSSSTYTPGDCPNFAAPRREVAPPYGGADFILATALASDPI
PNPLQKWEDSAHKPQSLDTDDPATLYAVVENVPPLPWKEFVPPLGLSDHFINPLELQN
GRCLFPAQYSMLATWPRPTPPPEATLELLGBVLPDMPLLGCLEDIEEALGGPAALPPA
POGKYTHPONNSTOTTKCHKGTYLYNDCPGPGODTDCRECESGSFTASENHLRHCLSC
           SKCRKEMGQVBISSCTVDPDTVCGCRKNQYPHYWSENLRQCFNCSLCLNGTVHLSCQE
KQNTVCTCHAGFPLPENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPLVI
                                      FFGLCLLSLLFIGLMYRYQRWKSKLYSIVGGKSTPFKFGELFGTTTKPLAPNPSFSPT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           909
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            80
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                                                                                                                                                              /product="tumor necrosis factor receptor"
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tumor necrosis factor receptor.
Human cDNA to mPNA.
                                                                                                       187. .273
/gene="TNF receptor"
                                                                                                                                   274. .1551
/gene="TNF receptor"
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Best Local Similarity:
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Bukaryota, Metazwa, Cherdata, Craniata, Vertebrata, Euteleostomi,

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PQGFYIHFQRIISTOTTFQHPOTTYLYINOFSFQDIRGEBLIGGEFTA LANDER IS
SKOFFERMOVELSSCTVDFTVGGFTANOYFHYRARBINISTOFTHUGHTALFAGUUE
RQNTV-TCHAGFPLERFVYGTSHTYRILFTFLILDGIBNUGHEINGTT IVOTTATA
FFGLCLLSLLFIGIMYPYQPMKSKLYSIVGGKSTPEFREGELEGTTTFFHANINAFFT
                                                                                                                                                                                                                                                                                                                                                                                                                                             PGETPTLGFSPVESSTFTSSETYTFSLCPMFAAPBEEVAPPYGGADF1LATALASEPT
PNDLGKWEDSAHKPGSLDTNDPATLYAVVENVPPLPWKEFVRRLATSDHETDREELAN
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                                                                                                                                                                                                                                                                                                                                                                    /translation="MGLSTVPDLLLPLVLLELLVG1YPSGV1GLVPHLGDPEKEDSVV
                                                          Adolf, G P Molecular cloning and expression of human and rat turner profession not because coeptor chain (p60) and its soluble derivative, turner necrosis factor-binding protein DNA Cell Biol. 9 (10), 705-715 (1990)
Mammalia; Eutheria; Primates; Cataribini; Hominidae; Homo.
1 (Dases 1 to 2112)
Himmler,A., Maurer-Fogy,I., PropPe,M., Scheutich,P.,
Pfizenmaier,K., Lantz,M., Olsson,I., Hauptmann,R., Stratowa,C.
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                                                                                                                                                                                                                                                                                                                   /product="tumor necrosis factor receptor"
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632 c 589 g 456 t
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Mismatches:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gene="TNF receptor"
294. .1571
                                                                                                                                                                                                                                                      'gene="TNF receptor"
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Best Local Similarity:
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GenCore version 5.1.3
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January 6, 2093, 03:59:46; Search time 264 Seconds (without alignments) 1373.378 Million cell updates/sec
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OM profein - nucleic search, using frame_plus_p2n model
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                                                                                                                                                                                                                                                                                                                                            2185239 segs, 1125949159 residues
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Ygapop 10 0 , Ygapext
Fgapop 6.0 , Fgapext
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Minimum DB seq length. 0 Maximum DB scq Longth: 2000000000 Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Listing first 45 summa Command line parameters:

RESULT 1 AAV41548

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Location/Qualifiers

Key

		d			SUMMARIES	
sult No.	Score	Query Match	Length	DB	D	Description
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13	941	00.	98	C1	-	Human 10 kDa TNF 3
14	941	c	17	12	AAQ10955	Encodes human 55kD
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· .	941	c. C		C•	ar or	Human TNFBF assocn
17	941	00	11	24	103	VNG.
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22	941	000	88	17	AAT15931	DHFP/intron (Wiras
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43	621		3	19	98	
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ALIGNMENTS
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548
AAV41548 standard; CDNA; 483 RP.
AAV41548;
28-SEP-1998 (first entry)
Human soluble tumour nerrosis factor receptor type I.
Human; tumour necrosis factor; TNF; TNF receptor type I;
inflammatory disease; leukaemia; TNF binding protein;
anti inflammatory drug; methotrexatess; ss.
Homo sapiens.

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Query Match:
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23 JAW-1997;
07-FEB-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 483 BP, 130 A, 124 C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This is the nucleotide sequence of the human tumour necrosis factor receptor type I, used in the method of the invention involving the treatment of acute or chronic inflammatory disease such as leukaemis by administering tumour necrosis factor binding protein and at least
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure, Fig 1, 104pp, English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Treatment of acute or chronic inflammatory disease, e.g. leukaemia - by administering tumour necrosis factor binding protein and at least one additional anti-inflammatory drug, e.g. methotrexate
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                                                                            FheGinG;sFheAsnC;sSerLeuCysLeuAsnGlyThrValHisLeuSerCysGlnGlu
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                                                                                                                   CGGGACACCGTGTGGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT
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                                                                                                                                              ArgAspThrValCysGlyCysArgLysAsnGlnTyrArgHisTyrTrpSerGluAsnLeu 100
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/product= "human soluble TNF receptor type I"
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Matches:
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Score:

Alignment Scores:

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Sequence 483

BP; 130 A; 124

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106 T;

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Best Local Similarity: Percent Similarity:

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06-DEC-1996;
23-JAN-1997;
                                                                                             e.g. arthritis, adult respiratory distress syndrome, cachexia/anorexia, cancer, chronic fatigue syndrome, graft rejection, Alzheimer's disease and other autoimmune diseases. Cells transformed with a vector containing DNA encoding the protein may be used for production of recombinant STNFR, which may also be used for measuring the amount of STNFR in samples and to raise antibodies against STNFR. TNBP may also be used in preparation of therapeutic compositions for treating the above diseases. The STNFR
                                                                                                                                                                                                                           This sequence encodes human soluble tumour necrosis factor receptor (sTNFR). The protein was used to make the truncated STNFR proteins of the invention. The truncated STNFR proteins and tumour necrosis factor binding proteins (TNBP) are used to treat any TNF-mediated disease,
                            proteins are well suited to large scale production (since they lack the deamidation site in region 111-126, so are more stable in vivo); contain fewer disulphide bonds and fewer epitopes, making them less antigenic than full-length proteins.
                                                                                                                                                                                                                                                                                                                     Claim 1; Fig 1; 205pp; English.
                                                                                                                                                                                                                                                                                                                                                       useful for treating diseases involving factor, e.g. arthritis and adult respiratory distress syndrome
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Soluble tumour necrosis factor receptor coding sequence
                                                                                                                                                                                                                                                                                                                                                                                           Truncated and soluble forms of tumour necrosis factor receptor -
                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1998-101052/09.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAV19801 standard, cDNA; 483 BP
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96US-0032534.
97US-0037737.
97US-0039314.
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Tumour mecrosis factor receptor 1; TNFR 1; inhibitor; osteoprotegerin;
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                                                                                                                       CysArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLeu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tumour necrosis inhibitor 30 kDa encoding cDNA.
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/note= "no stop codon given"
 Indels:
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Query Match:
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The present invention describes a chimeric polypeptide (A1), compilishing an esteoprotegerin (OpS) dimerisation demain fused to a hetericapous amino acid sequence. Also described are: (1) a multimer polypeptide comprising covalently associated Al monomers; (2) an isolated nucleic acid encoding A1; (3) an expression vector comprising the nucleic acid encoding A1; (3) an expression vector comprising the nucleic expression vector so that the nucleic acid is expression vector so that the nucleic acid is expression vector so that the nucleic acid is expressible. The products from the present invention are useful to treat a variety of disorders tunour necrosis factor (TNP) OpG and TNP receptor (TNP) OPG computations, compensation are used to treat an are used to treat an inflammation.
                                                                                                                                                                                                                                                                                                                                             fused beterologous sequences to identify potential new receptors and
ligands. The present sequence encodes the TNF inhibitor 30 kDa proferm
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                                                       New chimeric osteoprotegerin polypeptides - contain the osteoprotegerin dimerisation domain and a heterologous sequence,
                                                                                                                                                                                                                                                                                                                                                                                           Sequence 483 BP; 130 A; 124 C; 123 G; 106 T; 0 other;
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Conservative:
Mismatches:
                                                                                    useful to treat TNF and TNFR-mediated disorders
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-JUL-1989;
11-DEC-1989;
07-FEB-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to Tumour Necrosis Factor (TNP) inhibitors (see AAB37676 and AAB37685), which have the inhibitory activity. The novel TNF inhibitors of the present invention are useful as therapeutic agents for inhibiting the activity of TNF and interleukin (IL-1), and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 483 BP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  for treating inflammatory and degenerative diseases mediated by TNF. present sequence is the coding sequence for the 30 kDa TNF inhibitor The 30 kDa TNF inhibitor The 30 kDa TNF inhibitor can inhibit TNF alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel 30 kDa tumor necrosis factor inhibitor analog comprising a non-native cysteine residue cross-linked with polyethylene glycol, useful for treating inflammatory and degenerative diseases mediated by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-JUL-1993;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-MAR-2001
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                                    41
                              CysArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLeu
                                                                                                                                                                                                                                                          AspSerValCysProGlnGlyLysTyrIleHisProGlnAsnAsnSerIleCysCysThr
                                                                                                                                                  LysCysHisLysGlyThrTyrLeuTyrAsnAspCysProGlyProGlyGlnAspThrAsp 40
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AAB37676.
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90US-0479661
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         A novel fusion protein comprises 2 dimer forming co-expressed amino acid sequences, each consisting of a homodimeric or heterodimeric receptor chain or ligand, with ligand-receptor binding activity, bound directly or via a peptide linker to a subunit of a heterodimeric protein hormone capable of forming a heterodimer with the hormone's other subunits. The fusion protein, e.g. the
                                                                                                                Example; Pages 39-40; 60pp; English.
                                                                                                                                                            Hybrid dimeric protein comprising two co-expressed units - en based on receptor or ligand and a subunit of a heterodimeric
                                                                                                                                                                                                                                                                                                                                                                                                    W09730161-A1
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                                                                                                                                              hormone, especially FSH,
                                                                                                                                                                                                           P-PSDB; AAW33360
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                                                                                                                                                                                                                                                    Campbell RK,
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                                                                                                                                                                                                                                                                                                               20-FEB-1996,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCTGTAGTAACTGTAAGAAAAGCCTGGAGTGCACGAAGTTGTGCCTACCCCAGATTGAG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysGlnAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGGGACACCGTGTGTGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAT 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgAspThrValCysGlyCysArgLysAsnGlnTyrArgHisTyrTrpSerGluAsnLeu 100
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
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/*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    thrombopoietin; TPO; human chorionic gonadotrophin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
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                                                                                                                                            for inducing follicular maturation
                                                                                                                                                                                                                                                    Jameson
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thrombopoietin (TPO)/human chorionic gonadotrophin-beta subunit

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141 SerCysSerAsnCysLysLysSerLeuGluCysThrLysLeuCysLeuProGlnIleGlu 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101 PheGlnCysPheAsnCysSerLeuCysLeuAsnGlyThrValHisLeuSerCysGlnGlu 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 LynGlnAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysVal 140
                                                                                                                                                                                                                                                                                          145 (SATAGTGTGTGTGTGCCCAAGSAAAATATACCACCCCCAAAAATAATTGGTTGTGTGTACCAGTGTACC 404
                                                                                                                                                                                                                                                                                                                                                525 AGTTG.TGTAAATGTGAAAAGAAAATGAGTGAGTGGAGATCTCTTGCACAGTGGAC 584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgAspThrValCysGlyCysArgLysAsnGlnTyrArgHisTyrTrpSerGluAsnLeu 100
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 765 TOTOTAGTAGTAGTAGAAAAAGCTGGAGTGGAAGAAGTTGTGCCTACCCCAGATTGAG 824
                                                                                                                                                                                                                                                                                                                            21 LyaCysHisLysClyThrTyrLeuTyrAsnAspCysFroGlyBlyBlyBapThrAsp 40
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                                                                                                                                                                                                                                                                 | AspSerValCysProGlnGlyCysTyrIleHisProGlnAsnAsnSerIleCysCysThr 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SerCysSerLysCysArglysGluMetGlyGlnValGluIleSerSerCysThrValAsp
             significantly increases the biological activity of the hormone component, reducing the requirement for hormone itself and the number of injections needed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Plasmid Tumour Necrosis Factor-Binding Protein 15 cDNA insert.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tumour necrosis factor binding protein; TNF-BP; TNF-receptor;
ACG beta) fusion protein encoded by the present sequence,
                                                                           Sequence 1301 BP; 269 A; 413 C; 351 G; 268 T; 0 other;
                                                                                                                                        161
0
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                                                                                                                          Length:
Matches.
Conservative:
Mismatches:
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                                                                                                                                                                                                                                   09-882-735-2 (1-161) x AAT94022 (1-1301)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Socation/Qualifiers
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The resulting 0.75 kb DNA fragment was inserted into pT7/T3 alpha 19 (BRL) cut with the same enzymes to receiver pTNF-BP. This was cut with BamHI and EcoRI, and the receiver pTNF-BP. This was cut with Angles 281, and the receiver diragment inserted into pT7/F3 alpha 19 pAD-CWMI (AAG6282) to give the required plasmid pAMINF-BF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     333 GATAGTGTGTGTGCGCAA3SAAAATATATGCAAATAAAAATAAAATAATTGGATTTGGTGTAGT 492
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                                                                                                                                                                                                                                                                                                              pTNF-BP15 is one of 30 positives clones in a screened cDNA library
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA encoding TNF binding protein and TNF: receptor used in tumour treatment and to understand mechanismsm to TNF action
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1334 BP; 299 A; 409 C; 342 G; 284 T; 0 other;
                                                                                                                                                                Hauptmann R, Himmler A, Maurer Fogy I, Stratowa C;
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Mismatches:
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                                                                                                                                      The sequences given in AAQ4931-32 encode human tumous necrosis factor receptor (TWF-R) and the sequences in AAQ49933-34 encode human interleukin 1 receptor (IL IR). These sequences were used in the production of a fusion protein which conformed to one of the formulae:
                         The linker may comprise 5-100 amino acids selected from Gly, Asp, ser, Thr and Ala. These linkers separate the individual moeities by such a distance that each component of the fusion protien is capable of folding into the secondary or tertiary structure required for its biological activity These fusion proteins may be used in
therapy, diagnosis and assays for conditions mediated by TNF or IL-1.
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'U.I.'
                                                                                                                                                                                                                         Disclosure; Page 57-59; 85pp; English
                                                                                                                                                                                                                                                      rheumatoid arthritis, diabetes, cerebral malaria, sepsis, etc
                                                                                                                                                                                                                                                               New fusion protein tumbur necrosis factor and human interleukin-1 receptor - useful in therapy, diagnosis and assays of e.g.
                                                                                                                                                                                                                                                                                                                                                       Smith
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               particularly in conditions in which both TNF and IL-1 play a causitive role. They may be used to treat cachexia, rheumatoid arthritis, diabetes, multiple sclerosis, pulmonary fibrosis and silicosis, cerebral malaria, allograft and xenograft rejection in graft verses host disease, sepsis, septic shock, inflammation, allergies and
                                                                                 TWFR1; tumbur necrosis factor receptor; polymorphism; human; tumour; cancer; apoptosis; bacterial infection; ds.
                                                                                                                            Human TNFR1 coding sequence.
                                                                                                                                                                                                                    AAA95105 standard; DNA; 1368
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Polynucleotides comprising polymorphic variants of a reference sequence for tumour necrosis factor receptor 1 (TNFP1), useful for studying the biological function of TNFP1 and identifying drugs targeting the
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necrosis factor receptor 1 (TNFR1) gane. The present sequence is the coding sequence of the TNFR1 gene. The sequence of the whole gene is given in AAA95102, AAA95103 and AAA95104. The polymorphisms were identified by amplifying and sequencing regions of the gene Twelve

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CadC; fusion protein; tumour necrosis factor alpha interaction domain; protein-protein interaction; perpipamenic domain; transmembrane domain; cadC transcription; domain; receptor interaction; ligand identification; orphan receptor; ss.
polymorphic loci were discovered. Of these twelve polymorphisms, four cause a change in the TNFR1 protein. The TNFR1 polymorphisms may be useful for studying the biological function of TNFR1 as well as for identifying drugs targeting the protein for treatment of disorders related to its abnormal expression or function such as tumours,
                                                                                                                                                                                                                                                                                                                                                                                                                                 450
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                                                                                                                                                                                                                                                                                  LysGlnAsnThrValCysThrCysHisAlaGlyPhePheIeuArgGluAsnGlur'ysVal
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                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1368 BP; 292 A; 424 C; 376 G; 276 T; 0 other;
                                                               apoptosis related disorders and bacterial infection.
                                                                                                                                    Matches:
Conservative:
Mismatches:
                                                                                                                         Lengt h:
                                                                                                                                                                         Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CadC-fusion polypeptide coding sequence.
                                                                                                                                                                                      Gaps:
                                                                                                                                                                                                            US-09-882-735-2 (1-161) x AAA95105 (1-1368)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAX58150 standard; DNA; 1478 RP.
                                                                                                                         3.49e-78
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                                                                                                              Alignment Scores:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      compounds which modulate interactions between protein sequences. The clade fusion polypeptides comprise a geriplasmic domain, a transmembrane domain and a Cade transcriptional regulatory domain. Cells transformed with nucleic acid encoding the fusion proteins and a cadBA reporter construct can be used for identifying compounds which modulate a specific protein sequences involved in receptor interactions. e.g. dimerisation. In the last incompact in teractions, e.g. dimerisation. The system is extremely sensitive in that background is low and the magnitude of signal background is guite robust, such that even minor modulations in protein-protein interactions are readily detectable.
                                                                                                                                                                                                                                                                             1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Joquence 1473 BF, 398 A, 351 C, 346 G; 381 T, 2 Lthei;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This sequence encodes a CadC-fusion polypeptide containing the tumour necrosis factor alpha interaction domain.
The invention relates to CadC-fusion polypeptide nucleic acid constructs, which are used to transform calls to produce systems for identifying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New CadC fusion polypeptide nucleic acid constructs
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                                                                                                                                                                                                                                                                                                                                                                                                                   AAACAGAACACGTGTGCACCTGCCATGCAGGTTTCTTCTAGGAGAAAACGAGTTTTCT
                                                                 OBGGACACOSTGTGTGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT 1240
                                                                                                                                                                                                       ASSTSCIPCAAATSCCSAAASSAAATSSSTCAGSTSGAGATCTCTTCTTGCACAGTTGGAC 1180
                                                                                                                                                                                                                                                                                                                                            LysCycHicLysClyTirTy:LecTyrAsrAspCysFroGlyFroGlyGlnAspThrAsp 40
                                                                                                                                                                                                                                                                                                                                                                                                                                         AppSerValCysFreGinglyLysTyrIleHisPreGlnAsnAsnSerIleCysCysThr 20
                            LysGlnAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysVal 140
                                                                                                                                                        ArgAspTbrValCysClyCysArgLysAsnGlnTyrArgHisTyrTrpSerGluAsnLeu 100
                                                                                                                                                                                                                            TECAGEGAGIETGAGAGGGETTCTTTCACCGCTTCAGAAAACCACCTCAGACACTGCCTC 1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scores:
                                                                                                                                                                                                                                                                                                              CypArgCluCysCluserClySerFheThrAlaSerCluAsnHisLeuArgHisCysLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fig 9a; 123pp; English
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AAQ20973
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                         RESULT 10
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                                            The sequence is that of DNA encoding tumour necrosis factor alpha binding protein which was obtd. from a human placental cDNA library in lambda gtl11 using a prote (AAQ20974). The DNA also encodes the extracellular domain of human TNF alpha receptor and as such it is useful for treating diseases where TNF alpha is involved as a causaltive agent.
                      causative agent, e.g. cachexia, sepsis and autoimmune diseases, specifically rheumatoid arthritis. See also AA220974.
Sequence 2062 BP, 429 A, 616 C; 573 G; 444 T, 0 other;
                                                                                                                           Disclosure, Fig 1, 25pp, English.
                                                                                                                                                      e.g. rheumatoid arthritis
                                                                                                                                                                New tumour necrosis factor alpha binding protein and polypeptide useful in treating cachexia, sepsis and auto immune diseases
                                                                                                                                                                                                                      WPI; 1992-043613/06.
                                                                                                                                                                                                                                             Feldman M,
                                                                                                                                                                                                                                                                                                                        15-JUN-1990;
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/note= "encodes the extracellular domain
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/note= "homologous to probe AAQ20974"
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                                                                                                                                                                                                                                              Turner M,
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Alignment Scores: Pred. No.:

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141 SerCysSerAsnCyslysSerLeuGluCysThrLysLeuCysLeuProGlnIleGlu 160
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                                                                                                                                                                                                                                                                                                                                 454
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               41 CysArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLeu 60
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      Conservative:
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Indels:
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product= human TNF-alpha
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                                                                                                                                                    882-735 2 (1-161) x AAQ20973 (1-2062)
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library in gilo was general with probe AAQ29216. Ten hybridishing elements plaque purified and CDNA size determined by PAGE against an Eco RI digested phage DNA. The inserts of two CDNA clones were then sequenced. The coding region of the majority of the human TNE alpha 55kD receptor was isolated as an EcoRI fragment encoding 474 umino 55kD receptor was isolated as an EcoRI fragment encoding 474 umino 55kD receptor was isolated as an EcoRI fragment encoding 474 umino 55kD receptor was produced by engineering a termination codon just prior to the transmembrane engineering a termination codon just prior to the transmembrane restriction fragment which was cloned into prINFP, giving pTNFReed. DNA sequencing confirmed this contained the designed DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81 ArgAspThrValCysGlyCysArgLysAsnGlnTyrArgHisTytTrpSetGluAsnLru 180
                                                                                                                                                                                                                                                                                                                                                                                                  . A placenta conA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21 LygCysHisLysGlyThrTyrLeuTyrAsnAspCysProGlyProGlyGlnAspThrAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerCysSerLysCyaArgLysGluMetGlyGluNalGlullaSerSerCysThrValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            See also AAQ24440-51, AAR24606, AAR24080-84, AAR27585, AAQ292346 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New polypeptide capable of binding human TNF alpha compiners first three cysteine-rich subdomains of TNF alpha receptor for treating autoimmune disease, septic shock, HIV etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2062 BP; 429 A; 618 C; 572 G; 443 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                  This sequence encodes human TNF-alpha 55kD receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                     Brennan FM, Feldmann M, Gray PW, Turner MJC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
             /*tag= e
/codon= Seq:"GAC", aa:Asn
156.274
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                                                                                                                                                                                                        (CHAR-) CHARING CROSS SUNLEY RES CENT.
                                                                                                                                                                                                                                                                                                                                                                      Claim 4; Fig 1; 43pp; English.
                                                                                                                                                                            90GB-0022648
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                                                                                                                                              18-0CT-1991;
                                                                                                                                                                            18-OCT-1990;
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mat_peptide
                                                                                     W09207076-A.
                                                                                                                  30-APR-1992
                                           sig_peptide
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Percent Similarity:
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AAQ10883
ID AAQ1
                                           Pred.
Score:
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                                                                                      KKUZ GUNDANÎSAŞ
                                                                                                                        diseases
                                                                                                                                 which the sequence was obtd. was isolated from a cDNA library probability from RNA film 1937 cells treated with PMA/FHA. The whole gene can be inserted into expression vectors for preph. of TNF probability for use in the treatment of inflammatory and degenerative
                                                                                                                                                                                Ine
                                                                                                                                                                                                    Disclosure; Fig 21; 142pp; English.
                                                                                                                                                                                                                                                           D-1500B
                                                                                                                                                                                                                                                                                                                         07-EEB-1990;
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                                                                                                                                                                                                                                                                                                                                                            16-JUL-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tumour necrosis factor, inhibitor, ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30kD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-MAY-1991
                                                                                                                                                                                                                        Tumbur necrosis factor inhibitor - for suppression of TNF-alpha and -beta, useful as therapeutic agent.
                                                                                                                                                                                                                                                                                           (SYNE-)
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                                                                                                            also AACIU878, AACI0884 and AACI0907
                                                                                                                                                                              sequence encodes the entire 30 kD TNF inhibitor. The clone from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SerCySSerAsnCysLysLysSerLouGluCysThrLysLeuCysLeuProGlnIleGlu
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                                                                                                                                                                                                                                                                    1991-073847/11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PheClnCysPheAsnCysScrLeuCysLeuAsnGlyThrValHisLeuSerCysGlnGlu
                                                                                                                                                                                                                                                                                           SYNERGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  inhibitor precursor gene in lambda-gt10-7ctnfbp.
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                                                                                                        18-JUL-1989;
11-DEC-1989;
u7-FEB-1990;
P-PSDB; AAB37677
              WFI; 2001-006443/01
                                         Vanderslice
                                                                                                                                                09-JUL-1993;
                                                                                                                                                              19-JUL-1990;
                                                                                                                                                                                                                    07-NOV-2000
                                                                                                                                                                                                                                                                                                           TNF inhibitor; antiinflammatory; Tumour Necrosis Factor;
                                                                                                                                                                                                                                                                                                                                     Human 30 kDa TNF inhibitor precursor coding sequence
                                                                                                                                                                                                                                                                                                                                                                   02-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                              AAC83946;
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                                                    Squires C,
                                                                                                                                                                                         19 JAN 1995;
                                                                                                                                                                                                                                             US6143866-A.
                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                IL-1; inflammatory disease; degenerative disease; human;
                                                                                (AMGE-)
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                                                                                AMGEN INC.
                                         RW,
                                                    King MW,
                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                       90US-0555274.
93US-0090366.
89US-0381080.
89US-0450329.
90US-0479661.
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                                                    Brewer MT,
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Novel 30 kDa tumor necrosis factor inhibitor analog comprising a non native cysteine residue cross-linked with polyethylene glycol, useful for treating inflammatory and degenerative diseases mediated by
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Example 6; Fig 21; 82pp; English.

see AAB17676 and AAB37685), which have TNF inhibitory activity. The novel TNF inhibitors of the present invention are useful as therapeutic agents for inhibiting the activity of TNF and interleukin (IL-1), and for treating inflammatory and degenerative diseases mediated by TNF. The present sequence is the coding sequence for the precursor of 30 kDa TNF inhibitor. The 30 kDa TNF inhibitor can inhibit TNF alpha. The present invention relates to Tumour Necrosis Factor (TNF) inhibitors

Sequence 2088 BP; 439 A; 626 C; 578 G; 445 T; 0 other; *####**XX X** 2 2 2 2 2 2 2 2 **X** 8

0b 769 AAT 771

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TWF-BPs (see AARI1072-R11081) and oligonucleotide primers were synthesised based on these partial sequences. The primers were used to produce a CPNA fragment for use as aprobe to screen a human placental cDNA bank constructed in lambda gtll. Rositive cloters were identified and sequenced. DNA constructs complishing the TNF RP codition sequence may also contain a fragment encoding a human 19 domain. Recombinant constructs are used to transform cells to confer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CysArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Partial amino acid sequences were determined for the 55 and 75kb
                                                                                                                                                                                                                                                                                                                                          Insoluble tumour necrosis factor binding proteins - and DNA encoding them, useful in pharmaceutical prods, and for antibady
                                                                                                                                                                                                                                                                       Lesslauer W, Lotscher H;
         Tumour Necrosis Factor; binding proteins; septic shock;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2111 BP; 445 A; 628 C; 588 G; 450 T; 0 other;
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161
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                   autoimmune glomerulonephritis; lymphokine; cytokine
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Conservative:
Mismatches:
Indels:
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                                                                                                   /product = 55kD TNF-BP
                                          Location/Qualifiers
                                                                                                                                                                                                                                                                       Gentz R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            improved TNF-binding properties.
See also AAQ10956.
                                                                                                                                                                                                                                                                                                                                                                                           Claim 4; Fig 1; 26pp; German.
                                                                                                                                                                                                                                               (HOFF ) HOFFMANN-LA ROCHE AG.
                                                                                                                                                                                                 90CH-0001347.
                                                                                                                                                                          90EP-0116707.
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P-PSDB; AAR11082.
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                                                                                                                                                                                                                                                                     Brockhaus M,
Schlaeger EJ;
                                                                                                                                                                         31-AUG-1990;
                                                                                                                                                                                                20-APR-1990;
                                                                                                                                                                                                             12-SEP-1989;
                                                                                                                                                                                                                         08-MAR-1990;
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                                                      sig_peptide
                                                                                                                                                   20-MAR-1991
                                                                              mat_peptide
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486

Encodes human 55kD TNF-binding protein

24 MAY-1991 (first entry)

AA010955;

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AAQ10955 standard; cDNA; 2111 BP

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        This invention describes novel homogeneous insoluble proteins (I), their (in) soluble fragments (Ia) and their salts that can bind tumour
                                                                 New insoluble proteins, and fragments, that bind to tumor necrosis factor, used to treat e.g. septic shock or cerebral malaria
                                                                                                                   W.D.T.
                                                                                                                                       Brockhaus M,
Schlaeger E;
                                                                                                                                                                                                                     20-APR-1990;
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                                                                                                                                                                                                                                                                                                                                              sig_peptide
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                                                                                                                1999-480840/41
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SerCypSerApnCypLysLysSerLeuGluCysThrLysLeuCysLeuFroGlnIleGlu
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274..1551
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187..1554
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    anti-inflammatory and antimalarial activity. (I) and (Ia) are used (i) to treat diseases in which TNF is involved (e.g. septic shock, autoimmune glomerulonephritis, cerebral malaria, immune responses and inflammation), (ii) to purify TNF, (iii) to identify TNF (ant)agonists and (iv) for diagnostic determination of TNF in body fluids. Antibodies raised against are used for affinity purification of (I). This sequence encodes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a tumour necrosis factor binding protein described in the method of
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                                                                                                                                                                                                       PheGlnCysPheAsnCysSerLeuCysLeuAsnGlyThrValHisLeuSerCysGlnGlu
Asn 161
                                    TOCTOTAGTAAOTGTAAGAAAAGCCTGGAGTGCACGAAGTTGTGCCTACCCCAGATTGAG
                                                              SerCysSerAsnCysLysSysSerLeuGluCysThrLysLeuCysLeuProGlnIleGlu
                                                                                                            TTCCAGTGCTTCAATTGCAGCCTCTGCCTCAATGGGACCTGCACCTCTCCTGCCAGGAG
                                                                                                                                                                                                                                                         CGGGACACCGTGTGTGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT
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                                                                                                                                                                                                                                                                                                                                                   SerCysSerLysSysArgDysGluMetGlyGlnValGlulleSerSerCysThrValAsp
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                                                                                                                                                                                                                                                                                                                                                                                                                                            CysArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGTGCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCAGGATACGGÁC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LysCysHisLysGlyThrTyrLeuTyrAsnAspCysProGlyProGlyGlnAspThrAsp 40
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AspSerValCysProGlnGlyLysTyrIleHisProGlnAsnAsnSerIleCysCysThr 20
                                                                                                                                                                                                                                                                                          ArgAspThrValCysGlyCysArgLysAsnGlnTyrArgHisTyrTrpSerGluAsnLeu
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Search completed: January 6, 2003, 04:08:01

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mecrosis factor (TNF).

The products of the invention have

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Copyright (c) 1993 - 2003 Compugen Ltd
GenCore version 5.1.3
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OM protein - nucleic search, using frame_plus_p2n model

January 6, 2003, 04.00.20 ; Search time 53 Seconds Run on:

(without alignments) 931 603 Million cell updates/sec US-09-882-735-2

1 DSVCPQGKYIHPQNNSICT Perfect score: Sequence:

CSNCKKSLECTKLCLPQIEN 16:

Xgapop 10 0 , Xgapext Ygapop 10 0 , Ygapext Fgapop 6 0 , Fgapext 6.0 , Delext BLOSTIM62 Delop Scoring table:

441362 seqs, 153338381 residues Searched:

Total number of hits satisfying chosen parameters:

Maximum DB ธคศุ ไคมสูร์หา 200000000 Minimum DB seq length: 0

Maximum Match 100% Listing first 45 summaries Post processing. Minimum Match 0%

Command line parameters.

MODELstrame p2n.model -DEV=xlh

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Q-/crn2 1/USPTC_EPO-1/USOARA275/runat_03012003 074142_17077/app_query_fasta_1.327

DN-ISRUGA PATENTS ENA -OFMT=fastap -SUFFIX=rni -MINNATCH=0.1 -LOOPCL=0

LOOPEXT=0 -UNITS=51ts -STRAT=1 -END=-1 -MATRIX=blosum62 -TRANS=bunan40.cdi

LIST 45. DOCALCAN-ZOA -THP SCOPE-prt -THP MAX=100 -THP MIN-0 -ALIGN=15

-MODE-LOCAL CULTPMT-pro NOPMT=xt HEAPSIZE:500 -MINLEN=0 -MAX_00000000

USFER-USOAREA735 -WGG N1 17 -Krunat_0301203 0.4142_17077 -NCPU=6 -ICPU=3

NO XLPXY -NO MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -LONGIOG -DEV_TIMEOUT=120

WARN_TIMEOUT=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7

1: /cgn2_6/ptodata/1/ina/5A_COMB_seq.*
2: /cgn2_6/ptodata/1/ina/5B_COMB.seq.*
3: /cgn2_6/ptodata/1/ina/6A_COMB.seq.*
4: /cgn2_6/ptodata/1/ina/6A_COMB.seq.*
5: /cqn2_6/ptodata/1/ina/ptrys_COMB.seq.*
6: /cqn2_6/ptodata/1/ina/ptrys_COMB.seq.* Issued Patents NA:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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c	941	100		75	٠.	US 08-321-668-1		
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- 7 :	Semioner 6 Application		`	4.7	Sequence 47, Appl	Sequence 1, Appli	Sequence 1, Applit	~`	Sequence 3, Appl:	Sequence 1, Appli	Sequence 1, Appli	Sequence 56, Appl	Sequence 56, Appl	Sequence 3, Appli	Sequence 3, Appli		Sequence 49, Appl	Sequence 10, Appl	Sequence 3, Appli	Sequence 1, Appl:	Sequence 53, Appl	Sequence 'A', App;	Sequence 51, Appl	Sequence 51, Appl	~`	Sequence 3, Apply	Sequence 11, App.d	Sequence 9, Appli	Sequence 1, Appli	ر ً	Sequence 5, Appli
US-08-286-740 2	0-6850-00	09-904-166	-08-910-	-08-050-319B	08 465	US-08-804 166 1	-010-010-	-804-	11S-08-010-001-3	-08-050-319	US-08-465-982-1	- USU - BU -	US:08-465-982-56	11S-08-050-319B-3	115-08 465 982 3	-080-80-	US. 08-465-982-49		-513-	- 1	1	-08-465	- 319Е	-465-98	TIS. OR RIS 469 3	411-	-08-928-0	US 08 828 683A 9	US-08-815-469-1	-08-928-069	US 08-828-683A 5
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APPLICANT: Bendele, Alison M.
APPLICANT: Sennello, Regina M.
APPLICANT: Edwards, Carl K.
TITLE OF INVENTION: COMBINATION THERAPY USING A THE BINDIN: TITLE OF INVENTION: PROTEIN FOR TPEATING THE WEDIATHD INFORMATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWADE: Patentin Poloase #1 0, Vorsion #1 30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 60/036,355
FILING PATE: 23 JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/039,315
FILING DATE: 07 FEB-1997
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08-DEC-1997
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                                                                                                                                                                                                                                                               1: Amgen Inc.
1840 DeHavilland Drive
                                       // Sequence 1, Application US/09326394
// Patent No. 6306820
                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
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FILING DATE: 06.DEC-1996
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                                                                                                                                                                                                                                        COPPESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                      Thousand Oaks
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                  91320-1789
                                                                                  GENERAL INFORMATION:
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Best Local Similarity:
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Sequence 7, Application US/08804166
Patent No. 6193972
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Campbell, Robert K.
APPLICANT: Jameson, Bradford A.
APPLICANT: Chappel, Scott C.
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SEQUENCE CHARACTERISTICS:
LENGTH: 483 base pairs
TYPE: nucleic acid
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ATTORNEY/AGENT INFORMATION: NAME: ZINGRICK, Thomas K. FEGISTRATION NUMBER: 32,1
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                                                                                                                                                                                                    ASII 161
                                                                                                                                                                                                                                        TOUTGTAGTAACTGTAAGAAAAGCCTGGAGTGCACGAAGTTGTGCCTACCCCAGATTGAG
                                                                                                                                                                                                                                                                                                              PheGlnCysPheAsnCysSerLeuCysLeuAsnGlyThrValHisLeuSerCysGlnGlu 120
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-5197
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CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AND NEIMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
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101 PheGlnCysPheAsnCysSerLeuCysLeuAsnGlyThrValHisLeuSerCysGlnGlu
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LOCATION:
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                                                                          81 ArgAspThrValCysGlyCysArgLysAsnGlnTyrArgHisTyrTrpSerGluAsnLeu
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
STRANDEDNESS: sing
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REGISTRATION NUMBER:
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                                                                                                                                                SerCysSerLysCysArgLysGluMetGlyGlnValGluIleSerSerCysThrValAsp
                                                                                                                                                                                         TGCAGGGAGTGTGAGAGCGGGTTCACCGCTTCAGAAAACCACCTCAGACACTGCCTC
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                                                     CGGGACACCGTGTGTGGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT
                                                                                                                      AGCTGCTCCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATCTCTTCTTGCACAGTGGAC
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US-09-882-735-2 (1-161) x US-08-910-991-7 (1-1301)

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121 LysGlnAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysVal 140
645 TTFFAGTGFTTFAATTGFAGFFFFFGCCTCAATGGGAGGGTGCACCTCTCCTGCCAGGAG 704
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STREET: 419 Seventh Street N W , Ste 300
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APPLICANT: Campbell, Rohert K.
APPLICANT: Jameson, Bradford A
APPLICANT: Chappel, Scott C.
TITLE OF INVENTION: HYBRID PROTEINS
NUMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/910,991 FILING DATE:
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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FILING DATE: 20 February 1997
PRIOR APPLICATION DATA
APPLICATION NUMBER: 60/011,936
FILING DATE: 20 February 1996
ATTORNEY/AGENT INFORMATION.
                                                                                                                                                                                                                                                                        Sequence 7, Application US/ngqloggl
Patent No. 6194177
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REGISTRATION NUMBER: 37,971
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TELECOMMUNICATION INFORMATION
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INFORMATION FOR SEQ ID NO: 7
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STRANDEDNESS: single
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COMPUTER READABLE FORM:
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COUNTRY: US
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08-910-991-7
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APPLICANT: Menzel, Rolf
APPLICANT: Hsing, Welhong
APPLICANT: Hsing, Welhong
APPLICANT: Taggart, Pamela
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR IDENTIFYING AND MODULATING
TITLE OF INVENTION, PROTEIN-PROTEIN INTERACTIONS
FILE PEPERENCE: 9366-006

        141 SerCysSerAsnCysLysSerLeuGluCysThrLysLeuCysLeuProGln11edlu 160

        142 SerCysSerAsnCysLysSerLeuGluCysThrLysLeuCysLeuProGln11edlu 160

        765 TCCTSTAGTAACTAGAAAAAACTGAAATAGAAATTGTGCCLACCCAAATTGAA 824

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Matches:
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EARLIER APPLICATION NUMBER: 60/64,058
EARLIER FILING DATE: 1997-11-03
NUMBER OF SEQ ID NOS: 57
SOFTWARE: PALENTIN Ver. 2.0
SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-149-922-6
; Sequence 6, Application US/09149922A
; Patent No. 6265174
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No. 5633145
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 24, Application US/08050319B Patent No. 5633145
                       APPLICATION NUMBER: US/08/050,319B FILING DATE: 10-May-1993 CLASSIFICATION: 4.35 ATTOENEY/AGENT INFOEMATION: NAME: ROBBINS, ROBERTA L. REGISTRATION NUMBER: 33,208 FEFFENCE/DOCKET NUMBER 5150-0030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: M.Feldmann, P.W. Gray,
APPLICANT: M.J.C. Turner, F.M Brennan
TITLE OF INVENTION: Modified human TNFalpha (Tumor
TITLE OF INVENTION: Mecrosis Factor alpha) Receptor
NUMBER OF SEQUENCES. 57
                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
COMPUTER; IBM PC com
TELECOMMUNICATION INFORMATION
                                                                                                                                                                                 CURRENT APPLICATION DATA:
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STATE: California
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US-08-465-982-24
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TELEPAX: (415) 327-3231
INFORMATION FOR SEQ ID NO: 24:
                                                 APPLICANT: M.Feldmann, P.W. Gray,
APPLICANT: M.J.C. Turner, F.M Brennan
TITLE OF INVENTION: Modified human TNFalpha (Tumor
TITLE OF INVENTION: Necrosis Factor alpha) Receptor
NUMBER OF SEQUENCES: 57
                 NUMBER OF SEQUENCES: 57
CORRESPONDENCE ADDRESS:
ADDRESSEE: Reed & Robbins
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LENGTH: 2062 base pairs
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                                                                                                                                SOFTWARE: Patentin Release #1.0, version #1.25 CURRENT APPLICATION DATA:
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Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US 09 882 735 2 (1-161) x US-08-465-982-24 (1-2062)
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                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NIMBER: US/ns/nsn,319
FILING DATE: 10-May-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                  US/08/465,982
                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                    NAME: Robbins, Roberta I.
REGISTRATION NUMBER: 33,208
REFERENCE/DOCKET NUMBER: 515
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 617-8999
                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: (415) 617-8999
TELEFAX: (415) 327-3231
INFORMATION FOR SEQ 1D NO: 24:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE: CONA to mRNA
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                                                                                 Floppy disk
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STRANDEDNESS: double
                                                              COMPUTER READABLE FORM: MEDIUM TYPE: Floppy of
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                                                                                                                                                                   APPLICATION NUMBER:
                 California
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CITY: Palo Alto
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Rest Local Similarity:
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                                USA
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US - 08 - 465 982 24
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CORRESPONDENCE ADDRESS:
ADDRESSEE: 18is Pharmaceuticals, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative:
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                                                                                                                                                                                        APPLICANT: Brenda F. Baker and Lex M. Cowsert
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Matches:
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IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                          US/09/106,038A
                                                                                                                                           ; Sequence 1, Application US/09106038A; Patent No. 6007995; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Laurel Spear Bernstein
REGISTRATION NUMBER: 37,280
                                                                                                                                                                                                                                                                                                                                                                                            OPERATING SYSTEM: Windows NT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEGISTRATION NUMBER: 37,280
PEFEPENCE/DOCKET NIMBEP: PTS
TELECOMMINICATION INFORMATION:
                                                                                                                                                                                                                                                                           2292 Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Microsoft Word 97 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/09/1
FILING DATE: June 26, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (760) 931-9200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
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INFORMATION FOR SEQ ID NO: 1
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STRANDEDNESS: single
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SEQ ID NC 3
LENGTH, 21
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Bareat No. 6329148
General INFORMATTO:
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GREEAL INDORMATION.

APPLICANT. Rosen, Gloin

APPLICANT. Kac, Defor

TITLE OF INVENTION. Synorgistic Anti-Cancer Therapy with

TITLE OF INVENTION. Triptolides and feath Domain Ligands

FILE REFERENCE. TWI 109PNO.

CURRENT FILING DATE: 2000-02-15

NUMBER OF SEQ ID NOS: 4
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             #1 &: )&:; 11: Val 1; #51y0); #A: jLys&::SirTyiAt; jHisTyrTrpSerGluAsnLeu 100
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OBBSACACCETSTSTSSCTSCABGAASAACCASTACCSSCATTATTSSASTSAAAACCTT
                                                                   SCRCysSorLysCysArgLysGluMorGlyGlnValGluIloSerSorCysThrValAsp 80
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RESULT 9
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US:08:321-668-1
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; Patent No. 5665859
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INFORMATION FOR SEQ ID NO:
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APPLICANT: MAKAKEBUSCH, Cord
APPLICANT: VARFOLMEEV, Bugene
APPLICANT: BATKIN, Michael
TITLE OF INVENTION. MCLECULES INFLUENCING THE SHELDING OF
TITLE OF INVENTION: THE THE RECEFTORS, THEIR PREPARATION AND THEIR USE
                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: IL 107268
FILLING DATE: 12-OCT-1993
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy
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                                                                                                                                                               MOLECULE TYPE.
FEATURE:
                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION: TELEFHONE: 202-628-5197
TELEFAX: 202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin Release #1.0, Version CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/321,668 FILING DATE: 12-OCT-1994 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 419 Sever CITY: Washington STATE: D.C.
                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                TYPE: nucleic acid
STPANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                               NAME: BROWDY, Roger L. REGISTRATION NUMBER: 2
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                                                                                                                                                                                                                                                      2175 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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Matches.
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TITLE OF INVENTION: MOLECULES INFLUENCING THE SHEDDING OF TITLE OF INVENTION. THE TWE PECEPTOPS, THEIR PREPAPATION AND THEIR USE
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                                                                                                                                              176 GATAGTGTGTGTGTGTGTGTAAAAAATATTCCACCTCAAAATAATTCGATTTGCTGTACC 435
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                                                                                                    1 AspšerValCysProGlnGlyLysTyrIleHisProGlnAsnSerIleCysCysThr
                                                                                                                                                                                          21 LysCysHisLysGlyThrTyrLeuTyrAsnAspCysProGlyProGlyGlnAspThrAsp
                                                                                                                                                                                                                                                                                                                                                         61 SerCysSerLysCysArgLysGluMetGlyGlnValGluIleSerSerCysThrValAsp
                                                                                                                                                                                                                                                                                                                                                                                               556 AGGTGCTCCAAATGGGGAAAGGAAATGGGTCAGGTGGAGATCTCTTGCACAGTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                616 CGGGACACCGTGTGTGGCTGCAGGAACCAGTACCGGCATTATTGGAGTGAAAACCTT
                                                                                                                                                                                                                                                                        41 CysArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLeu
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                                                             US 09 882 735 2 (1 161) x US 08-321-668-1 (1-2175)
  Indels
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FILING DATE: 28-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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Patent No. 5766917
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APPLICANT: WALLACH, David
APPLICANT: BPARERUSCH, Cord
APPLICANT: VARFOLOMERY, EUGENE
APPLICANT: BATKIN, Michael
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FIGING DATE: 12 OCT 1994
APPLICATION NUMBER: IL 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Washington
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Query Match:
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81 ArgAspThrValCysG1yCysArglysAsnG1nTyrArgHisTyrTrpSerG1uAsnLeu 30**
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Matches:
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                                            REFERENCE/DOCKET NIMBER - WALLACH=13
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// Fatont No. 5811261
// GENERAL INFORMATION:
                     NAME: BROWDY, Roger L.
REGISTRATION NUMBER: 25,618
                                                     TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-628-5197
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941.nn
FILING DATE: 12-00T-1993
          ATTORNEY/AGENT INFORMATION:
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                                                                                                                          2175 base pairs
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                                                                         TELEFAX: 202-737-3528
TELEX: 248633
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                        NAME/KEY: CDS
LOCATION: 256..1620
                                                                                                                                                                     MOLECULE TYPE: CDNA
                                                                                                                                                          linear
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                                                                                                                          LENGTH:
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Best Legal Similarity:
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eriling Date: 24-Sep-1993
CLASS-EPICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/625668
FILING DATE: 13-DEC-1990
ATTOEMEY/ACENT INFORMATION:
NAME: BEOMOTY, ROGER I,
REGISTRATION NUMBER: 25,618
REFERENCE/COTFIT NIMBER: WALLACHY
TELECOMMUNICATION INFORMATION:
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INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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NAME/KEY:
LOCATION:
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CURRENT APPLICATION DATA:
APPLICATION NUMBER. US/U8/126,016
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MEDIUM TYPE: Ploppy disk

COMPUTER: IFM PC COMPUTER:

OPERATING SYSTEM: PC-FOSO/MS-FOS

SCETTIABLE: Dataset Bridge
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                                                                                                                  436 AASTSCCACAAASSAACCTACTTGTACAATSACTTSTCCAGGCCCGGGGCAGGATACGGAC 495
                                                                                                                                                                                              376 GATASTGTGTGCCCCAAGSAAAATATATCCACCCTCAAAATAATTGGATTTGCTGTACC 435
                                                                                                                                    21 LysCysHisLysGlyTh:TyrLeuTyrAsnAspCysPrcGlyFrcGlyGlnAspThrAsp 40
%1 SetCy=SetEy=CysArgLysGluMetGlyGlnValGluTleSetSetCysThtValAsp 80
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                                       TOCACOCACTSTOMGAGOGOCTCCTTCACCOCTTCAGAAAACCÁCCTCAGÁCÁCTGCCTC 555
                                                            Cyp4rg3luSyp3luSerClySerEheThrAlaSerGluAsnHisLeuArgHisLysLeu 60
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419 Seventh Street, N.W., Suite 300
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KEMPEP, OLIVEP
ENGELMANN, HARTMUT
BEAKEBUSCH, OCED
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Best Local Similarity:
                    Percent Similarity:
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INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                      MOLECULE TYPE:
FEATURE:
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TELEPHONE: 202-628-5197
TELEPAX: 202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: WALLACH, David
APPLICANT: BRAKEBUSCH, Cord
TITLE OF INVENTICAL THE RECEITION ACTION MODULATION
NUMBER OF SEQUENCES: 8
                                                        No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
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ADDRESSEE: BROWDY AND NEIMARK
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                                                                                                                                NAME/KEY.
LOCATION:
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                                                                                                                                                                                                                            TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Townsend, Kevin G. REGISTRATION NUMBER: 34, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/054,970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Washington STATE: D.C.
                                                                                                                                                                                                                                                                  LENGTH:
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Mismatches
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PheGlnCysPheAsnCysSerLeuCysLeuAsnGlyThrValHisLeuSerCysGlnGlu 120
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                                                                                                                                       21 LysCysHisLysGlyThrTyrLeuTyrAsnAspCysProGlyProGlyGlnAspThrAsp 40
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TITLE OF INVENTION: METHOD FOR SELECTING HIGH-EXPRESSING
TITLE OF INVENTION: HOST CELLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                             US 09 882:715 2 (1-161) x US-08-054-970-1 (1-2175)
Indela.
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CURRENT APPLICATION DATA:
APPLICATION NUMBER. US/08/286,740
CILKUS DATE: 05-NUC-1994
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CITY: South San Francisco
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CORRESPONDENCE ADDRESS:
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COUNTRY: USA
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APPLICANT: Crowler
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Query Match:
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                                                                                                                                                                                          Conservative.
Mismatches:
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Matches:
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CORRESPONDENCE ADDRESS: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Sequence 2, Application PC/TUS9509576; GENERAL INFORMATION:
                                 INFORMATION FOR SEQ ID NO. 2: SEQUENCE CHARACTERISTICS: LENGTH: 6889 bases TYPE: nucleic acid STRANDEDNESS: double
TELECOMMUNICATION INFORMATION
                                                                                                                                                                             941.00
100.00%
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            TELEPHONE: 415/225-1994
TELEFAX: 415/952-9881
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                                                                                                               TOPOLOGY: linear
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Query Match:
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COMPUTER READABLE FORM:

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Query Match:
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TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
PCT-US95-09576-2
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Best (G/al Similarity
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TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO.
SEQUENCE CHARACTERISTICS:
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AFFLICATION HYMBER: 08/21
FILING DATE: 05-AUG-1994
ATTORNEY/AGENT INFORMATION
NAME: Lee, Wendy M.
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CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                  CysArgCluCysCluSerClySerPheThrAlaSerCluAsnHisLeuArgHisCysLeu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATAGTSTSTSTCCCCAAGGAAAATATATCCACCCTCAAAATAATTATCCGCTTTAACCTTTGCTGTAACCTT84
Asn 161
                                     TOUTGTAGTAACTGTAAGAAAGGCTGGAGTGGAGGAAGTTGTGGCCTACCCCAGATTGAG 2204
                                                                                                                                           LysGlnAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysVal 140
                                                                                                                                                                                       TICCAGIGCTICAATIGCAGICTOTGCICAATGGGACCTGCACCTCTCCTGCCAGAG 2084
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                                                                                                               AAACAGAACACOGTGTGCACCTGCCATGCAGGTTTCTTTCTAAGAGAAAACGAGTGTGTC 2144
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Matches:
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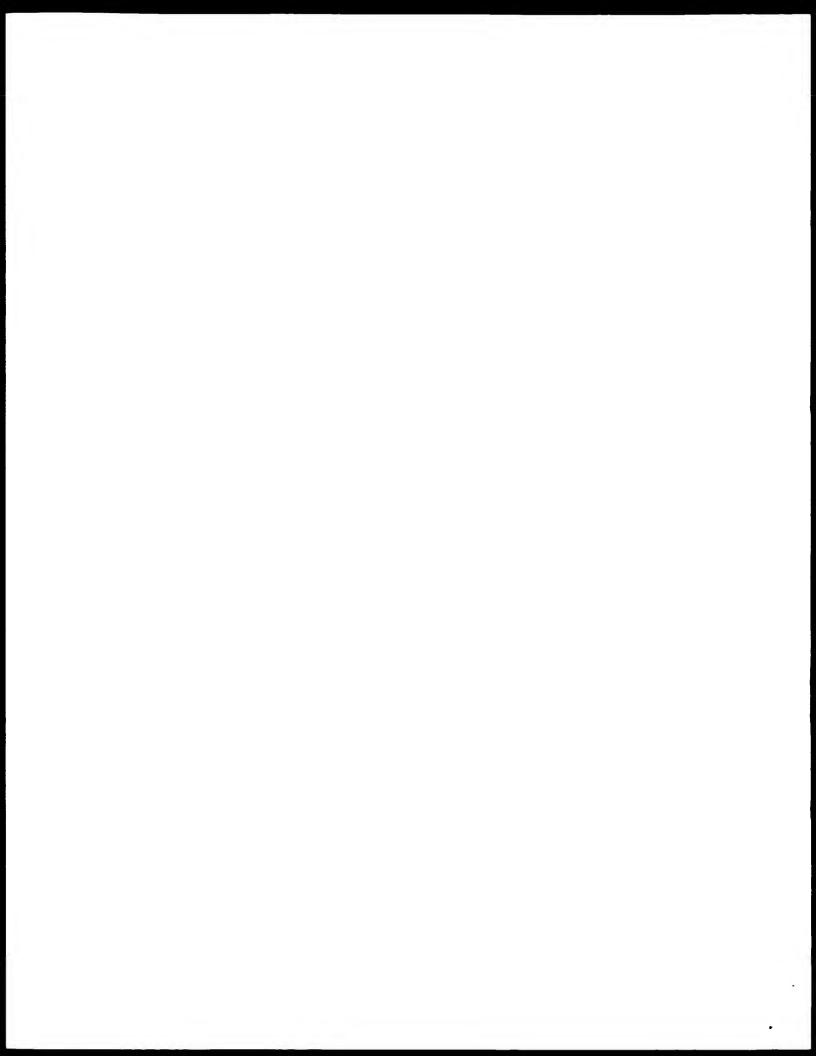
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US-08-627-151A-6
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                                                                                                                                                                                                                                                                                                                                        Query Match:
                                                                                                                                                                                                                                                                                                                                                                              Fercent Similarity:
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APPLICANT: BECHERER, Kathleen
APPLICANT: BROWN, Steven
TITLE OF INVENTION: SCREENING DRUG LIBRARIES
TITLE OF INVENTION: SCREENING DRUG LIBRARIES
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COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
1235 AGCTGCTCCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATCTCTTCTTGCACAGTGGAC 1294
                                                                                                                                          1115 AAGTGCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCAGGATACGGAC
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PRIOR APPLICATION DATA:
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                                                                                                     41 CysArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLeu 60
                                                                                                                                                                          21 LysCysHisLysGlyThrTyrLeuTyrAsnAspCysProGlyProGlyGlnAspThrAsp 40
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: single
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TELEFAX: 619-410-8928
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Fisher, Carlos A REGISTRATION NUMBER: 36
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Search completed: January 6, 2003, 04:09:12 Job time : 65 secs



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Command line parameters.

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DR=Published Applications NA -QEMT-fastap -SUPFTx-rnpb_-MINMATCH=0.1

-LOOPCI.-0 -LOOPEXT+0 -NINTS-bits -STAPT=1 -END=-1 MATPIX-blosum62

TRANS-human40 -cdi -LIST=44. -DOCALIGN=200 -THP SCORE=pct -THR MAX=100

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MAXER -20000000 - REPE-FROARS-200 -THREADS-1 -ANDROGES-0 -WAIT -LONGLOG

DEV TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XOAPOP=10 -XGAPEXT=0.5 -FCAPOP=6

FilaPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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                                                               FILE REFERENCE: 98-385-J
CURPENT APPLICATION NUMBER: US/09/899,429A
CURRENT FILING DATE: 2001-07-03
PRICE APPLICATION NUMBER: 09/792,356
PRICE FILING DATE: 2000-02-23
                                                                                                                                                                                                        APPLICANT:
                PRIOR APPLICATION NUMBER: 08/477,639 PRIOR FILING DATE: 1955-06-07 PRIOR APPLICATION NUMBER: 08/383,676
                                                                                                                                                       TITLE OF INVENTION: TNF Receptors, TNF Binding Proteins and TITLE OF INVENTION: Them
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Maurer-Fogy, Ingrid
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                        APPLICANT: Hauptmann, Rudolph
APPLICANT: Himmler, Adolph
APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Stratowa, Christian
APPLICANT: Stratowa, Christian TITLE OF INVENTION: TNF Receptors, TNF Binding Proteins and DNAs Coding for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: 07/511,430 PRIOR FILING DATE: 1990-04-20 NUMBER OF SEQ ID NOS: 97
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PRIOR FILING DATE: 1993-11-17
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR FILING DATE: 1992-01-02
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LOCATION: (1).
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Matches:
       FILE REPERENCE: 98,385-G
CURRENT APPLICATION NUMBER: US/09/792,356
CURRENT APPLICATION NUMBER: US/09/792,356
CURRENT FILING DATE: 2001-08-17
PRIOR PUBLICATION NUMBER: 08/313,676
PRIOR FILING DATE: 1995-06-07
PRIOR FILING DATE: 1995-07-07
PRIOR FILING DATE: 1993-11-17
PRIOR FILING DATE: 1993-11-17
PRIOR FILING DATE: 1993-11-17
PRIOR FILING DATE: 1992-01-02
PRIOR PILING DATE: 1992-01-02
PRIOR PILING DATE: 1992-01-02
PRIOR PILING DATE: 1902-04-20
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SEQ 1D NO 3
TITLE OF INVENTION: Them
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APPLICANT: Himmler, Adolph
APPLICANT: Himmler, Adolph
APPLICANT: Maurer-Rogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: The Receptors, TNF Binding Proteins and DMAs Coding for TITLE OF INVENTION: Them
FILE REPERENCE: 98,385-H
CURPENT APPLICATION NUMBER US/09/899,422
CURPENT FILING DATE: 2001-08-21
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PRIOR APPLICATION NUMBER: 09/525,998
PRIOR PILING DATE: 2000-03-15,998
PRIOR PILING DATE: 1995-02-01
PRIOR PPLICATION NUMBER: 08/183,287
PRIOR FILING DATE: 1993-11-17
PRIOR FILING DATE: 1993-11-17
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR PILING DATE: 1990-01-20
Sequence 3, Application US/09899422
                                       APPLICANT: Hauptmann, Rudolph
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            Patent No. US20020090676A1
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA OPGANISM Homo sapiens
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; LOCATION: (1)..(483)
US-09-899-422-3
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Best Local Similarity:
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Pred. No.:
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Patent No. US20020119324A1
GENEPAL INFOPMATION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PateutIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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NAME: Zindrick, Thomas K.
REGISTRATION NUMBER: 32,1
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FILING DATE: 17-Jul-2001
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatil
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Edwards, Carl K.
Edwards, Carl K.
TITLE OF INVENTION: COMPLIANTION THERAFY USING A THE BINDING
PROTEIN FOR TREATING THP-MEDIATED DISEASES
                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: cDNA
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                                                                                                                                                                                                                                                                                                                                                                       FEATURE
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GATAGIGIGIGICCCCAAGGAAAATATATCCACCCTCAAAATAATTCGATTTGCTGTACC 60
                 AspSerValCysProGlrGlyLysTyrIleHisProGlnAsnAsnSerIleCysCysThr 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 09/326,394
FILING DATE: 1999-06-04
APPLICATION NUMBER: US 60/036,355
FILING DATE: 23-JAN-1997
APPLICATION NUMBER: US 60/039,315
FILING DATE: 07-FEB-1997
APPLICATION NUMBER: US 60/052,023
FILING DATE: 09-JUL-1997
                                                                                                                                                                                                                                                                                                                              NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 483 base pairs TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE: CA
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Alignment Scores:
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                                                                                                                                                                                                                                                          SOFTWARE:
SEQ ID NO 5
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                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 08/153,287
PRIOR FILING DATE: 1993-11-17
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR FILING DATE: 1992-01-02
PRIOR APPLICATION NUMBER: 07/511,430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: TNF Receptors, TNF Binding Proteins and DNAs Coding for TITLE OF INVENTION: Them FILE REFERENCE: 98-385-J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 08/477,639
PRIOR FILING DATE: 1955-06-07
PRIOR APPLICATION NUMBER: 08/383,676
PRIOR FILING DATE: 1995-02-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/899,429A CURRENT FILING DATE: 2001-07-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Hauptmann, Rudolph APPLICANT: Himmler, Adolph
                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                                                                                                                                                                              PRIOR FILING DATE: 1990-04-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: 09/792,356
                                                                                                                                                               TYFE. DNA ORGANISM: Artificial Sequence FEATURE:
                                                                    NAME/KEY: CDS
LOCATION: (1)..(486)
                                                                                                                OTHER INFORMATION: Description of Artificial Sequence: recombinant OTHER INFORMATION: TNF-BP sequence
                                                                                                                                                                                                                                   LENGTH: 486
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Maurer-Fogy, Ingrid
Stratowa, Christian
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Pred. No.:

3.25e-94

Length:

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APPLICANT: Himmler, Adoiph
APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: The Receptors, TNF Binding Proteins and DNAs Coding for
FITLE OF INVENTION: Them
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                                                                                                                                                               4 GATACTGTGTGTGTGTGTGTAAAATATTGCACCTCAAAATAATTGGATTTGCTGTACC
                 Conservative:
                                 Mismatches:
                                                                                                882 735 2 (1:161) x US 09 899:429A·5 (1:486)
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PURENT FILING DATE: 2001-07-03
PURENT PILING DATE: 2000-02-23
PRIOP FILING TATE: 2000-02-23
PRIOR APPLICATION NUMBER: 08/477,639
PRIOR FILING DATE: 1955-06-03
PRIOR FILING DATE: 1955-06-03
PRIOR FILING DATE: 1995-02-01
PRIOR PRILING DATE: 1995-02-01
PRIOR PILING DATE: 1993-11-17
PRIOR PRILING TATE: 1993-11-17
PRIOR APPLICATION NUMBER: 07/621,750
PRIOR FILING DATE: 1993-11-07
PRIOR FILING DATE: 1993-11-02
PRIOR FILING DATE: 1993-11-02
PRIOR FILING DATE: 1990-04-20
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SEO ID NO 19
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               Percent Similarity:
Best Local Similarity:
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APPLICANT: Himmler, Adolph
APPLICANT: Hamler, Adolph
APPLICANT: Stratus April
APPLICANT: Stratus Christian
TITLE OF INVENTION: The Receptors, THF Pinding Proteins and Dian Coding for ITLE OF INVENTION: Them
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                                                                                                                                                                                                                                                                                                                                                                                                                                         OTHER INFORMATION: Description of Artificial Sequence: recombinant OTHER INFORMATION: TNF-BP sequence
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Mismatches:
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CURPENT APPLICATION NUMBEP: 115/04/499,429A
CURPENT FILING DATE: 2001-07-03
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PPIOR APPLICATION NINBER: 09/792,356
PPIOR FILING DATE: 2000 02 23
PPIOR APPLICATION NINBER: 08/477,639
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          ORGANISM: Artificial Sequence
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Best Local Similarity:
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                                                          NAME/KEY. CDS
LOCATION: (1)
                                                                                   US-09-899-429A-19
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US-09-899-429A-15
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TYPE: DNA
                      FEATURE:
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PRIOR FILING DATE: 1995-02-01
PRIOR PRILING DATE: 1993-11-17
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR FILING DATE: 1993-11-17
PRIOR PRILING DATE: 1992-01-02
PRIOR FILING (AFE: 1992-01-02
PRIOR APPLICATION NUMBER: 07/511,430
PRIOR APPLICATION NUMBER: 07/511,430
PRIOR FILING DATE: 1990-04-20
NUMBER: 07-5EQ ID NO: 97
SOFTWARE: Patentin Ver: 2.0
SEQ ID NO: 15
                                    WESULT 9
US-09-899-429A-9
/ Sequence 9, Application US/09A99429A
/ Patent No. US20020169118A1
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GENERAL INFORMATION:
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PRIOR APPLICATION NUMBER: 08/383,676
PRIOR FLING DATE: 1995-02-01
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR PFLICATION NUMBER: 07/821,750
PRIOR FILING DATE: 1993-11-17
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR FILING DATE: 1992-01-02
PRIOR APPLICATION NUMBER: 07/511,430
PRIOR FILING DATE: 1990-04-20
NUMBER OF SEQ ID NOS: 97
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CURPENT FILING DATE: 2001-07-03
PRIOR APPLICATION NUMBER: 09/792,356
PRIOR FILING DATE: 2000-02-23
PRIOR APPLICATION NUMBER: 08/477,639
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TITLE OF INVENTION: TNF Receptors, TNF Binding Proteins and DNAs Coding for
TITLE OF INVENTION: Them
FILE REFERENCE: 98-385-J
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LOCATION: (1)..(549)
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APPLICANT. Himmler, Adolph
APPLICANT: Maurer-Fooy, Ingrid
APPLICANT: Stratowa, Christian
APPLICANT: Stratowa, Christian
ATTLE OF INVENTION: Them
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CURRENT APPLICATION NUMBER: US/09/899,429A
CURRENT FILING DATE: 2001-07-03
PRIOR APPLICATION NUMBER: 09/792,356
PRIOR APPLICATION NUMBER: 08/477,639
PRIOR APPLICATION NUMBER: 08/38,676
PRIOR FILING DATE: 1955.06-07
PRIOR PILING DATE: 1955.06-07
PRIOR PILING DATE: 1992.01-17
PRIOR PILING DATE: 1993.11-17
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR FILING PATE: 1993.01-02
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Patent No. US20020169118A1
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APPLICANT: Humler, Adolph
APPLICANT: Humler, Adolph
APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Statowa, Christian
TITLE OF INVENTION. THE Receptors, TNF Binding Froteins and EMAs Colling for
TITLE OF INVENTION. Them
FILE SERENCE 98-385-0-1
CURRENT PILING DATE: 2001-07-03
PRIOR FILING DATE: 2000-02-23
PRIOR FILING DATE: 1995-06-07
PRIOR PAPLICATION NUMBER: 08/477,639
PRIOR FILING DATE: 1995-02-01
PRIOR FILING DATE: 1993-11-17
PRIOR FILING DATE: 1990-04-20
PRIOR FILING DATE: 1990-04-20
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; GENERAL INFORMATION:
APPLICANT: Hauptmann, Rudolph
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Alignment Scotes:
Pred. No.:
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FRICE AFFLICATION MIXMER: 09/792,356
PRIOR ELLING DATE: 1000 02 23
PRIOR EPPLICATION MIXMER: 68/477,633
PRIOR FILING DATE: 1955-06-07
FRIOR APPLICATION MIXMER 08/383,676
PRIOR FILING DATE: 1959-02-91
PRIOR FILING DATE: 1939-11-17
PRIOR FILING DATE: 1939-11-17
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Sequence 
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APPLICANT: Hauptmann, Rudolph
APFLICANT. Himmler, Adolph
APPLICANT: Maurer-Fogy, Ingrid
APPLICANT: Stratowa, Christian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT AFFLICATION NUMBER: US/09/899,429A CURRENT FILING DATE: 2001 07 03
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Stratowa, Christian TITLE OF INVENTION. THE Receptors, THE Binding Proteins and DNAs Coding for TITLE OF INVENTION. Them FILE REFERENCE: 98-385-J
                                                                                                                                                                               OTHER INFORMATION. Description of Artificial Sequence: recombinant OTHER INFORMATION: TNF-RP suguence NAME/RET. COS. LOCATION: (1)...(603)
                                                                                                                                                                                                                                                                                                                         ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
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US-09-899-429A-7
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CURRENT FILING DATE: 2001-07-03
PRIOR APPLICATION NUMBER: 09/792,356
PRIOR APPLICATION NUMBER: 08/477,639
PRIOR TILING DATE: 1955-06-07
PRIOR APPLICATION NUMBER: 08/283,676
PRIOR FILING DATE: 1955-06-07
PRIOR APPLICATION NUMBER: 08/183,676
PRIOR FILING DATE: 1955-02-01
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR FILING DATE: 1993-11-17
PRIOR APPLICATION NUMBER: 07/821,750
PRIOR FILING DATE: 1993-01-02
PRIOR FILING DATE: 1993-01-02
PRIOR FILING DATE: 1990-04-20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; Sequence 7, Application US/09899429A; Patent No. US20020169118A1
                           SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Hauptmann, Rudolph
APPLICANT. Himmler, Adolph
AFPLICANT: Maurer-Pogy, Ingrid
APPLICANT: Stratowa, Christian
                                                                                NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: THE Receptors, TWF Binding Proteins and DNAs Coding for TITLE OF INVENTION: Them
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILE REFERENCE: 98-385-J
LENGTH: 633
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                                                          OTHER INFORMATION: Description of Artificial Sequence: recombinant OTHER INFORMATION: TNF-RP sequence
                                                                                                                                                                                                                                                                                                                                                                               Conservative:
Mismatches:
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APPLICANT: Campbell, Robert K. APPLICANT: Campbell, Scott C. TITLE OF INVENTION: HYPRID PROTEINS NIMBER OF SEQUENCES: 22 CURRESFONDENCE ADDRESS:
ORGANISM: Artificial Sequence
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FEFFERENCE FOCKET NUMBER: CAMPBELL,=2A
TELECOMMUNICATION INFORMATION:
TELEPHONE. (202) 628-5197
TELEPHONE. (202) 737-3528
INFORMATION FOR SEQ ID NO. 7:
SEQUENCE CHARACTERISTICS:
                        COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWAPE: PatentIn Pelease #1 0, CURRENT APPLICATION DATA:
                                                                                                                                                                   APPLICATION NUMBER: US/09/756,186
                                                                                                                                                                                                                                                                  PRIOP APPLICATION DATA - APPLICATION NUMBER: 08/804,166
                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Browdy, Roger L. REGISTRATION NUMBER: 25,618
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CLASSIFICATION:
ATTOPNEY/AGENT INFOPMATION:
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CUPPENT APPLICATION NUMBER: US/09/898,234
CUBPENT FILING DATE: 2001-07-03
PRIOR APPLICATION NUMBER: 09/525,998
PRIOR FILING DATE: 2000-03-15
PRIOR AIPLICATION WIMSER: 09/383,676
PRIOR AIPLICATION WIMSER: 09/383,676
PRIOR FILING DATE: 1995-02-01
PRIOR APPLICATION NUMBER: 08/153,287
PRIOR FILING DATE: 1993-11-17
PRIOR FILING DATE: 1993-11-02
PRIOR FILING DATE: 1990-04-20
NUMBER OF SEQ ID NOS: 87
SOTTWARE: PATENTIN NUMBER: 07/511,430
PRIOR FILING DATE: 1990-04-20
NUMBER OF SEQ ID NOS: 87
SOTTWARE: PATENTIN Ver. 2.0
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COTHER INFORMATION. Description of Artificial Sequence: cDNA insert of COTHER INFORMATION. Lumbiditur BDIS und pINF-BDIS vectors
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Patent No. US20020155112A1
GENERAL INFORMATION.
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GENERAL INFERMATION:
APPLICANT: Haupunarn, Rudolph
APPLICANT: Haupunarn, Adolph
APPLICANT: Mauror Fory, Ingrid
APPLICANT: Stratowa, Christian
TITLE OF INVENTION: The Receptors, TNF Binding Proteins and DNAs Coding
TITLE OF INVENTION: Them
TITLE REFERENCE: 98,385.1
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Search completed: January 6, 2003, 04:13:57 Job time: 281 secs

GenCore version 5.1.3 Copyright (c) 1993 - 2003 Compugen Ltd.

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OM protein - nucleic search, using frame_plus_p2n model
Run on: January 6, 2003, 04:09:21 , Search time 2190 Seconds
(without alignments)
1190.627 Million cell updates/sec
Title: US-09-882-735-2
Perfect score: 941
Scoring table: BLOSUM62
Xqapop 10.0 , Xgapext 0.5
Yqapop 10.0 , Ygapext 0.5
Yqapop 10.0 , Ygapext 7.0
Searched: 16154066 seqs, 8097743376 residues
Total number of hits satisfying chosen parameters: 32308132
Minimum DB seq length: 0.8
Maximum DB seq length: 200000000
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Post-processing: Minimum Match 0%

Maximum Match 100%

Maximum Match 100%

Listing first 45 summaries

Command line parameters:

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0./cgn2_1/HGPTO.spool/USOGRA2734/runat_03012001 n74144 17227/app_query.fasta_1.327

DN=EST .OPWT=fasta p. SUFFIX-rst -MINMATCH=0.1 -LOOPEXT=0

DNTS-bits START=1 -BND=1 -MATRIX-blosum62 TRANS-human40.cdi .LIST=45

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WARN TIMEOUT=30 -THPRANS-1 -XGAPOP=10 -XGAPES+0 -WAIT -LONGLOS -DEV TIMEOUT=10

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ALIGNMENTS

RESULT 1	
BQ723672	
LOCUS	BQ723672 931 bp mRNA linear EUT 16 JUL 2002
DEFINITION	AGENCOURT 8489850 Lupski dorsal root ganglion Homo sapiens CDNA
	clone IMAGE:6184295 5', mRNA sequence.
ACCESSION	BQ723672
VEPSION	BQ723672.1 G1:21862569
KEYWORDS	BST.
SOURCE	human.
ORGANISM	Homo sapiens
	Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Enteleostemi,
	Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
REFERENCE	1 (bases 1 to 931)
AITHOPS	NIH-MGC http://mgc nci nih.gov/
TITLE	National Institutes of Health, Mammalian Gene Collection (MGC)

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                                  LysEinAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysVal 140
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cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: cgapbs-r@mail_nih_gov
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                                                                                                                                                                                                                                                            `CCAAATGCCGAAAGGAAATGGGTCAGGTGGAGATCTCTTCTTGCACAGTGGAC
                                                                                                                                                                      GTGTGTGGGGGGAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note-"Vector: pCMV-SPORT6 (Life Technologies); Site 1: NotI; Site 2: SalI; cDNA made by oligo-dT priming. Directionally cloned using the following adaptors: 5'-TCGACCCACGCCTCCG-3' and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 kb for average insert length 1.7 kb. This is a primary library, non-amplified. Library constructed by Life Technologies and donated by J. Lupski, M.D./Ph.D. (Bayloz College of Medicine) and is available through Life
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5'-GACTAGTTCTAGATCGCGAGCGGCCGCCCT(15)-3'. Size selected
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /tissue_type="dorsal root ganglia"
/dev_stage="adult, 36 yr"
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/clone_lib="Lupski_dorsal_root_ganglion"
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61 SerCysSerLysCysArgLysGluMetGlyGlnValGluIleSerSerCysThrValAsp
                                                                                        41 CysArgGluCysGluSerGlySerPheThrAlaSerGluAsnHisLeuArgHisCysLeu
                                                                                                                                                                         21 LysCysHisLysGlyThrTyrLeuTyrAsnAspCysProGlyProGlyGlnAspThrAsp 40
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              http://fulllength.invitrogen.com"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rockville, Maryland 20850, USA Fax: (1)
Email, fliang@lifetech.com URL:
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/clone_lib="LTI_NFL008_TC2"
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/lab host="DH10B (phage-resistant)"
/note="vorgan: prostate; Vector: pc/vs/SPORT6; Site_1: Not1;
Site_2: Sall; Cloned unidirectionally; oligo-dT primed.
Average insert size 1.4 kb. Library enriched for full length clones and constructed by Life Technologies.
Note: this is a NIH MGC Library."
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                     602129676F1 NIH_MGC_91 Homo sapiens cDNA clone IMAGE:4431019 5', mRNA sequence.
                                                                                  cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.AG.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
                            | 141 | SerCysSerAsnCysLysLysSerLeuGluCysThrLysLeuCysLeuProGln11eGlu 160
493 AGCTGCTFCFAAATGCFGAAAAAAAAAAGGGTAGGTAGGTAGGATFFFFFTTGCTTGCAGGGGGGGGG
                                                                                                                                               121 LynglnAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysVal 140
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTP
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Research Institute; cDNA library construction: Department of
Virology, Institute of Medical Science, University of Tokyo, and
Helix Research Institute.
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Yamamoto,J., Wakamafsu,A., Nakamura,Y., Nagai,T., Suqano,S. and
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                                                                                                                                                                                                                                                                                  Helix Research Institute
1532-3 Yana, Kisarazu, Chiba 292 0812, Japan
TTE1: 81-438-52-3975
Fax: 81-438-52-3986
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/db_xref="taxon-9406"
/clone="NT2RP3003570"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email, genomics@hri.co.jp
HRI human cDNA project; 5'
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Genomics Laboratory
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Query Match:
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                                                  Full-length cDNA libraries and normaliant, Unpublished (2001)
Contact: Com-
                                                                                                                                                                                                                                                                 AL522989
AL522989 LTI_NFLC04_NBC2
prime, mRNA sequence.
                  Genoscope - Centre National de Sequencage
BP 191 91006 EVPY cedex - France
                                                                                                                     Eukaryota; Metazoa; Chordata, Craniata, Vertebrata, Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. (bases 1 to 837)
Email: segref@genoscope.cns.fr, Web : www.genoscope.cns.fr
                                                                                                                                                                             Homo sapiens
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/cell_line="NT2"
/note="Vector: pME18SFL3; mRNA from NT2 neuronal precursor
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ampwess and linear EST 20-FEB-2002 AGENCOURT_6491128 NIH_MGC_125 Homo sapiens cDNA clone IMAGE:5723557 5', mkNA sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="Organ: brain; Vector: pCMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-stranded CDNA was digested with Not I and cloned into the Not I and Eco RV sites of the pCMVSPORT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="neuroblastoma cells"
/lab_host="DH10B"
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                                                                                                                                                                   Eukaryofa, Metazoa, Chordata; Graniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81 ArgAcpThyValCysGlyCysArg.vsAsaGlnTyrArgHisTyrTrpSetGluAsnLeu 100
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National Institutes of Health, Mammalian Gene Collection (MGC)
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Tissue Procurement: Invitrogen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: cgapbs-ramail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Arrayed by The I M A.G E Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found -hrough the I M A G E Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM11438 row: h column: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     High quality sequence start: 4
High quality sequence stop: 795.
Location/Qualifiers
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National Institutes of Health, Mammalian Gene
Engulvished (1999)
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//clone_tip________//clone_tip_________/abhost="pHiOB" = pooled brain, lung, testis; Vector: /note="Organ: pooled brain, lung, testis; Vector: /note="Organ: pooled brain; Site_2: EccRV (destroyed), RNA gowv-SECRT6, Site_1: Note; Total brains, age range 23:27; 1 male lung, age 27; and i male testis, age 69. Library is oligo-dT primed and directionally cloned (BcoRV site is destroyed upon cloning). Average insert size range 1.3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 021. Note: this is a NIH MGC Library."
                                                                                                                                                                                                                                                                                                                                        /db_xref="taxon:9606"
/clone="IMAGE:5176000"
/clone_lib="NIHE_MGC_115"
                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
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Catarrhini; Huminidae; Humo
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                                                                                                                                                                                                                                      Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Email: seqrefagenoscope cns.fr. Web - www genoscope cns.fr
                                                                                                                                                                                                                                                                                                                               Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished (2001)
                                                                                                                                                                                                                                                                                                               Contact: Genoscope
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Mammalia, Eutheria, Frimates, Catarrhini; Hominidae, Homo.
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AL577008
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/clone="CSODI082YA01"
/clone lib="LTI NFL006 PL2"
/clone lib="LTI NFL006 PL2"
/tissue type="placenta"
/note="Vector: pCMVSPORT 6; Site_1: NotI; 1st strand cDNA
/mas primed with a NotI-oligo(dT) primer. Five prime end
enriched, double-stranded cDNA was digested with Not I and
cloned into the Not I and Eco PV sites of the pCMVSPORT 6
                                                                                                                                                        db_xref="taxon:9606"
                                                                                                                                                                             organism="Homo sapiens"
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vector. Library was normalized. Library was constructed by Life Technologies. Contact.: Feng Liang Life Technologies, a division of Invitrogen 9800 Medical Center Drive Rockville, Maryland 20850, USA Fax: (1) 301 610 8371 http://fulllength.invitrogen.com URL: 256 c 259 g 221 t 6 others
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/tissue_type="adenocarcinoma, cell_line"
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       cDNA Library Preparation: Life Technologies, Inc.
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DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can befound through the I.M.A.G.E. Consortium/LLNL at:
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Full-length cDNA libraries and normalization
Unpublished (2001)
Contact: Genoscope
Genoscope - Gentte National de Sequencage
BP 191 9105 EVPY cedex - Flance
Email: segref@genoscope.cns.fr, Web - www.genoscope.cns.fr
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Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo. 1 (bases 1 to 942)
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/lab_host="DH10B"
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/db_xref="taxon:9606"
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/clone="CSUDDUU5YFU5"
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TITLE
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                                                                                                      27 rLeuTyrAsnAspCysProGlyProGlyGlnAspThrAspCysArgGluCysGluSerGl
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                               ySerPheThrAlaSerGluAsnHisLeuArgHisCysLeuSerCysSerLysCysArgLy
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Tissue Procurement: ATCC
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National Institutes of Health, Mammalian
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Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
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/lab_host="DH108 (phage-resistant)"
/note="07gan: colon; Vector: pcMV-SPORT6, Site_1. Not1;
/note="07gan: colon; Vector: pcMV-SPORT6, Site_1. Not1;
Site_2: Sall; Cloned unidirectionally. Primer: Oligo dT.
Site_2: Sall; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.8 kk. Libiary constructed by Life
Technologies. "
Technologies. "
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/clone="IMAGE:3852525"
/clone_lib="NIH_MGC_65"
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603058164FI NIH_MGC_122 Homo sapiens cDNA clone IMAGE:5207679 57,
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Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
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Clone distribution: MGC clone distribution information can be found through the I M A G.E. Consortium/LLNL atthicts//image.lln.gov
Plate: LLAMI1520 row: p column: 16
107
                                                                                            127 rCysHisAlaGlyPhePheLeuArgGluAsnGluCysValSerCysSerAsnCysLysLy 147
                                                                                                                                                                                                                                                    1 (bases 1 to 872)
NIH WGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                       87 SArglysAsnGlnTyrArgHisTyrTrpSerGluAsnLeuPheGlnCysPheAsnCysSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
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Mismatches:
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/clone lib="NIH MGC_122"
/lab host="DH10B"
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/db xref="taxon:9606"
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Location/Qualifiers
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JOURNAL
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Saito,K., Yamamoto,J., Nakamura,Y., Nishikawa,T., Naqai,T., Suruk:
,Y., Sugano,S., Isngai,T.)
Unpublished (2000)
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Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
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HRI human cDNA project, 5'- & 3'-end one pass seguencing Helix
Research Institute, cDNA library construction. Department of
Vivology, Institute of Medical Science, University of Tokyo, and
Helix Research Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ota,T., Wakamatsu,A., Ozawa,M., Ishii,S., Sairo,K., Yamamoto,J.
Nakamura,Y., Nishikawa,T., Nagai,T., Suzuki,Y., Suqano,S. and
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                                                                              Helix Research Institute
1532-3 Yana, Kisarazu, Chiba 292 0812, Japan
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/clone="NT2RM4000896"
/clone=lib="NT2RM4"
                                          US-09-882-735-2 (1-161) x BI769006 (1-872)
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Genomics Laboratory
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Fax: 81-438-52-3986
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                                                                                                                                                       Homo sapiens
Edwarysts; Metarsa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria, Primates, Catarrhini, Hominidae; Homo.

1 (bases 1 to 916)
NIH-MGC http://mgc nci nih.gov/
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                   Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc
                                                                                                                                                                                                                                                                    numan
                                                                                                                                                                                                                                                                                                   ы1/5/305.1 GI:15748883
                                                                                                                                                                                                                                                                                                                                        mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                       BI757305
                                                                                                                         Contact: Pobert Strausberg, Ph.D
                                                                                                                                        Unpublished (1999)
                                                 cDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by The I.M A G E Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can be cumd through the I.M.A.G.E. Consortium/LLNL at:
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/cell_line="NT2"
/note="Vector, pME18SFL3; mFRA from uninduced NT2 neuronal
precursor cells"
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TCTCCTGTAGTAACTGTAAGAACAGCCTGGAGTGCACCGAAGTTTGTGCCTAACCCCAA
                                       alSerCysSerAsnCysLysLysSerLeuGluCysThrLysLeuCysLeu---ProGln 158
                                                                                                                           luLysGlnAsnThrValCysThrCysHisAlaGlyPhePheLeuArgGluAsnGluCysV
                                                                                                                                                                          TTTCCAGTGCTTCAATTGCAGCCTCTGCCCTCAATGGGACCGTGCACCTCTCCTGCCAGG
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High quality sequence stop, 827.
Location/Qualifiers
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Plate.LLAM11500 row
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /lab_host="DH10B"
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/clone_lib="NIH_MGC_114"
/lab_beat_"Errich"
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GenCore version 5.1.3 Copyright (c) 1993 - 2003 Compugen Ltd.

January 6, 2003, 01:14:03 ; Search time 2774 Seconds (without alignments) 5047 287 Million cell updates/sec gritariniagattgagaat 493 4109280 2054640 segs, 14551402878 residues Total number of hits satisfying chosen parameters: Post processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries OM nucleic - nucleic search, using sw model IDENTITY_NUC Gapop 10.0 , Gapext 1.0 l gatagtgtgtgtcccraagg The mine of the mi Minimum DB seq length: 0 Maximum DB seq length: 200000000 US - 09 - 882 - 735 - 1 483 GenEmbl.* Title: Perfect score: Scoring table: Database : Searched: Sequence: Run on:

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15	483	00	_	6	HUMTNFRC	M63121 Buman tumor
16	483	Ö	V.	¥		AROSESSE Sequence
17	483	00	œ	6	HSTNFRIA	X55313 H. Bapiens
18	483	00	1	9	A43873	A43873 Sequence 1
19	483	00	2175	9	A78738	A78748 Sequence 7
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21	483	00	7	9	164751	164751 Sequence 1
22	483	Ü	Γ	ď	A19907	A19902 Synthetic r
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26	4	00	9689	9	BD009743	BD009743 Compositi
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28	4	98.8	510	9	A21525	A21525 oliqonuc.ec
29	475.2	98.4	900	9	143808	143808 Sequence 4
30	475	98.3	1147	9	Ö	AR131309 Sequence
31	475	98.3	1147	9	AR134761	AP134761 Sequence
32	471	97.5	2061	9	Apoper	
33	424.4	87.9	1049	9	R13	AP141407 Sequence
34	424.4	87.9	1049		AR134759	134759
35	424.4	87.9	1202		AR131308	AR131308 Sequence
36	424.4	87.9	1202		134	AP134760 Sequence
37	œ	79.3	504		A20713	A20713 Synthetre r
38	383	79.3	504		143813	143813 Sequence 56
39	œ	78.9	501		I43786	143786 Sequence 1
40		78.6	1977		AX404869	AX404869 Sequence
41	37	77.0	372		A20253	April 3 Synthetist n
42	-	7	372		143787	143787 Sequence 3
43	9	76.4	500	9	A20254	A20254 Synthetic n
44	358.2	74.2	2171		AB051103	ABOS1103 Felis cat

ALIGNMENTS

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JOUPNAI,	Patent: EP 0391438-A 49 24-004-1990;
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Bendele, A.M., Sennello, R.M. and Edwards III, C.K.
Combination therapy using a TNF binding protein for treating
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AR174442
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Patent: US 6306820-A 1
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Query Match 100.0%; Score 483; DB 6; Length 1301; Best Local Similarity 100.0%; Pred. No. 5.9e-141;
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Campbell,R.K., Jameson,B.A. and Chappel,S.C.
Hybrid heterodimeric protein hormone
Patent: US 6193972-A 7 27-FEB 2001;
Location/Qualifiers
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